18908

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TRANSACTIONS

OF THE

Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

Nineteenth Annual Session,

1883.

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To the Homœopathic Medical Society of Pennsylvania:

The proceedings and papers of the Nineteenth Annual Session of your Society are herewith respectfully submitted.

T. M. Strong, M.D.,
R. E. Caruthers, M.D,
J. F. Cooper, M.D.,
Committee of Publication.

Allegheny, Pa., December, 1883.

18908

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	L. H. Willard, M.D.,	Allegheny.
	H. J. Sartain, M.D.,	Philadelphia.

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PROCEEDINGS

OF THE

NINETEENTH ANNUAL SESSION

OF THE

Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

PHILADELPHIA, PA., September 18th, 19th and 20th, 1883.

The Society was called to order at 10 A. M., by Dr. Hugh Pitcairn, First Vice President.

Dr. W. B. TRITES, President of the Homœopathic Medical Society of the County of Philadelphia, then delivered the address of welcome, as follows:

MR. PRESIDENT, LADIES AND GENTLEMEN:

It falls to my lot, as President of the County Medical Society, to extend to you a welcome to the city of Philadelphia. I feel glad, and I know that my colleagues in Philadelphia are delighted, to have you meet with us. We have invited you to hold this session with us, feeling that we have not done in the past what we should have for the advancement of this Society. We have invited you to hold this session with us as an earnest that we will do better in the future. Homœopathy has met with great success in Philadelphia, and this is to be wondered at when we remember that Philadelphia has always been the Mecca of American medicine. When you remember that in this city the names of Gibson, Mitchell and Chapman are household words; that the theories which they believed in had a firm

hold on the minds and hearts of the people; that with the richly endowed colleges of the allopathic fraternity, do you not wonder that Homœopathy has, against such mighty odds, won for herself a place of regard and honor. To-day, we number over three hundred physicians in the city of Philadelphia. The halls of our college are thronged with earnest men from every part of the Union. We have hospitals erected. Never, perhaps, in the history of Homœopathy has fortune smiled so propitiously on us as she does to-day. Be assured, Mr. President, that through this I extend to you the assurance of our members, that we are delighted to have you. You notice from the programme which you have received to what effect the committee has labored. Now, again, I extend to you in the name of my colleagues in Philadelphia a hearty welcome. We hope that this session shall become a memorable one in the history of the Society, both for the interesting papers and the social enjoyment of the members.

Dr. Pitcairn, in behalf of the State Society, responded, as follows:

Dr. Trites, and Members of the Homœopathic Medical Society of the County of Philadelphia:

In behalf of the Homœopathic Medical Society of the State of Pennsylvania, I have the pleasure of accepting your kind and hearty words of welcome. Let me assure you that we fully appreciate the hospitality so kindly extended, and the opportunities afforded us by your forethought for both instruction and pleasure. When Philadelphia was named at our last session, held in Altoona over a year ago, there was no mistaking the unanimity of feeling and pleasure manifested, and as members of the State Society we have looked forward with expectancy, satisfied in our own minds that we could not be otherwise than profited in coming in convention and association with the largest number of intelligent and honorable members of the homœopathic school of medicine to be found in any city.

You may well be proud of your beautiful city. In point of intelligence, integrity, and all that serves to make a desirable

place of residence, it is the foremost city of the Nation. It is no marvel that so many young practitioners of medicine, after once enjoying her advantages and privileges, hesitate to leave her favored borders, even with prospect of larger fields and greater financial returns elsewhere. She numbers in the ranks of her physicians many of the foremost practitioners of our school in America, who stand the peers of any elsewhere to be found. From the birth of the Nation she has been the home of great and good men who have taken front rank in its history, fashioning our laws after their pure characters and noble ideals; men who have founded institutions of charity and learning with breadth and forethought unsurpassed elsewhere, and well establishing her claim to the name "City of Brotherly Love."

To many of us, however, who come to attend this meeting, your tender of hospitality is like being welcomed to a great family reunion. In this home and hot-bed of Homœopathy we received much of the inspiration which has made us earnest advocates of the truths of our system of medicine, and in the few days before us, not only will we receive profit of your communicated wisdom, but we will dream over the days of "Auld Lang Syne."

When we return to our homes, we feel assured in our own minds we shall carry with us pleasant thoughts of your kindness and much useful information to aid us in the pursuit of our beloved profession.

In the name of the Homœopathic Medical Society of the State of Pennsylvania, I thank you.

I have now the pleasure of introducing to you the President of this Society, Pemberton Dudley, M. D., who will address you.

PRESIDENT'S ANNUAL ADDRESS.

Fellow Members:

There are certain matters connected with our Society's organization and work to which I invite your attention.

First. Has not the time now come when we might, with advantage, reduce our initiation fee to a minimum sum, or else abolish it altogether? The reception of a new member involves

the Society in no special expense, nor does the member acquire an interest in any property or franchise for which he should be required to pay. We are desirous that all the reputable homœopathic physicians of our State, and especially all those just commencing practice, should be associated with us in the scientific and professional duties and privileges of the Society, and we expend time and money in efforts to secure that object; and it does not seem expedient to raise any barrier at the door of our association, except to secure some compensating benefit. As to the income derivable from this source, it is doubtful whether an initiation fee does not operate to keep out numerous physicians, and particularly the younger ones, and thus lessen the Society's income rather than increase it.

Secondly. It would be an advantage if a larger proportion of our members could be engaged in active society work. There seems to be an impression that those who do not happen to be placed upon bureaus are formally excused from the scientific duties of the year, though the letter of our By-laws plainly indicates the contrary. As connected with this subject, some slight modifications of our present bureau system are suggested. In the first place, we ought, for self-evident reasons, to allow no member to serve on more than one bureau, the bureau of O., R. and S. being, of course, excepted from this rule. This would allow of the appointment of a larger proportion of our members to active duty, while it need not prevent any member from contributing volunteer papers to as many bureaus as he pleased. In the next place, the By-laws do not define the maximum membership of the bureaus, and I therefore hope that this year, upon some of the bureaus at least, a somewhat larger number than usual may be appointed.

Thirdly. There are probably few more important or more difficult problems now engaging the attention of large medical organizations than the direction and limitation of extemporaneous medical discussion. The national society of the other school has undertaken to solve the difficulty by means of the "sectional plan," in which the members distribute themselves in groups, and discussions on a number of subjects are progressing at one time. The plan allows abundance of time for each discussion, but

unfortunately it limits the full benefits of each discussion to a small proportion of the members. Moreover, it tends to impair the close relationship, and the constant feeling of interdependence which should subsist between the various specialties, and between each specialty and *general* medicine and surgery. I believe that our present plan is far preferable, but am fully aware of some of its defects and disadvantages. To secure some improvement, I respectfully recommend that it be made the duty of each bureau chairman to announce, through the Secretary's annual circular, a single specific subject for general discussion under his bureau report; to present from some member of the Society a paper upon the same specific subject, and to announce in the same way a member or members to open the discussion; that each bureau shall be entitled to one and a half hour for the presentation of its report and the discussion thereon, and that this time shall not be extended, except by unanimous consent. This latter provision will, I think, dispel the most prominent cause of dissatisfaction and irritation in our medical societies.

It is pleasant to be able to report, year after year, that the cause of scientific therapeutics is making steady advances in our State. Among the more striking evidences of this fact might be mentioned, the establishment and improvement of our hospitals, the strengthening of our college, the widening and deepening influence of our journals, the growth of our standard literature, the increase in the relative proportion of our practitioners, and in the number of educated and influential laymen who support and encourage them. The approaching completion of Pittsburgh's splendid hospital, and the contemplated erection, within the next twelve months, of new college and hospital buildings in Philadelphia, will mark the beginning of an era of a still more rapid growth, and a still wider influence.

As connected with our future progress, and as suggesting certain action by this Society, I have to call your attention to the attitude of our State government, and of nearly all our county and municipal governments, towards those of our citizens who happen to be believers in Homœopathy. I do not regard this attitude as one of hostility, but rather as one of utter thoughtlessness, or, at the worst, of supreme indifference. The people of Pennsylvania

are divided in their medical belief, just as they are in their religious faith, into distinct classes. One of these medical classes includes two-thirds to three-fourths, and the other, one-fourth to one-third of our people. Almost all the legislation conferring medical benefits upon the people is diverted to the use and behoof of one of these classes, to the exclusion of the other; and vast sums of the public money are annually appropriated to the sole benefit of this favored class. Especially is this true as regards the establishment and maintenance of hospitals for the insane. Our Legislature provides, for the care and treatment of the insane of the favored class, no less than five immense hospitals, with more than three thousand beds, for the support of which the State and county governments appropriate more than half a million dollars annually; while for the remainder of the people there is furnished not a single hospital, a single ward, a single bed, or a single dollar. In most of our county and municipal governments, and particularly here in Philadelphia, we see the same spirit of official favoritism, the same disposition to ignore the equal rights of citizens, and the same misuse of public funds. One class, embracing about two-thirds of our tax-payers, is provided with an immense hospital of one thousand beds, together with facilities for the care of six hundred of the indigent insane, and a hospital for the care and treatment of those afflicted with pestilential and contagious diseases, while the remaining third of our people are left utterly destitute of any such public provision. The material for clinical instruction furnished by our vast city hospital is partly devoted to the education of those physicians who are to be the medical advisors of the favored class, while the remainder is wasted rather than allow it to be used in the education of those who are to be the physicians of the other class. A memorial has been laid before the hospital authorities, showing that this clinical material could be used without detriment to any legitimate public, private or personal interest; without considerable expense in the first place, and with subsequent positive benefit to the public treasury. This memorial was supported by the respectful petition of more than two thousand prominent business firms and tax-payers of the city. It secured an acknowledgment of the reasonableness and justice of the

demand, and a promise that as soon as practicable it should be complied with; and then, as might have been expected, the matter was dropped. It is but simple justice to both the State and the city to add, that the citizens belonging to this smaller class are graciously allowed to pay their full share of taxes for the sole benefit of those who belong to the bigger one.

One would naturally suppose that the homœopathic physicians and citizens of this State and this city have had ample opportunity to learn that only exceptionally can elective office-holders be influenced by considerations of equal justice and fairness, and that more determined measures must be taken in order to secure our rights. Our American system provides two methods of securing a redress of grievances—the petition and the ballot. The official who fails to respect the one, should be made to fear the other. The legislator who is willing to ignore the equal rights of any class of citizens, is absolutely unfit for the discharge of any high public trust.

The matter of obtaining our rights as citizens here in Philadelphia seems to be properly in charge of the Philadelphia County Society. As regards our rights in the State, I respectfully recommend as follows:

First. That the next Legislature be petitioned to establish, and place under homœopathic management, two hospitals for the care and treatment of the insane; one in the eastern and one in the western portion of the State.

Secondly. That the Standing Committee on Legislation be instructed to solicit from all candidates for election to the next Legislature, a written pledge and promise to urge and vote for, and in all practicable ways to favor, the establishment of said hospitals.

Thirdly. That in case any candidates shall refuse or fail to give such pledge and promise, the committee shall report such candidates to the newspapers and to the homœopathic physicians of their respective districts, and shall urge the latter to use their influence with their patients and friends to secure the defeat of such candidates.

It is probable that the cause of equal rights will find about as many friends and as many foes in one party as in the other, and that without seriously modifying the complexion of the next Leg-

islature, seven hundred and twenty-five influential and industrious physicians will be able, in numerous localities, to change majorities into minorities and *vice versa*, and with substantial benefit to the cause of honest government in every instance.

All physicians and sanitarians are interested in the subject of public health, and this Society has more than once taken action favoring the establishment of a State Sanitary Board. At the last session of the Legislature, a bill contemplating the organization of such a board was considered, but failed of final passage. The bill was quite defective in some particulars, and radically so in that it proposed to place in the hands of the board certain control over the practice and practitioners of medicine—a subject not properly within the province of a board of health. Notwithstanding this serious imperfection, such is the need of a State Sanitary Board that certain homœopathic organizations favored the passage of the bill, trusting that the board might be composed of men too honorable to abuse their authority. It was stated in some of the newspapers that this State Society had petitioned for the passage of the act. Such, however, was not the case.

Concerning this subject of a State Board of Health, Pennsylvania is about twelve years behind the age. On such a subject she ought to be, and could be, in advance of all her sister States. We cannot be too earnest in urging this matter. The preservation and study of our vital statistics; the sanitary care of our school children, our factory and store employees, our miners, our insane, our paupers and our criminals; the protection of our streams; the control of local outbreaks of disease and of general epidemics; the instruction of the public in the means of preserving the health of the community, the household and the individual—these and numerous other considerations should impel us to energetic action in securing a general board of health for our State. It might be proper for our Committee on Legislation to secure the draft of a proper bill for this purpose, and to petition for its enactment. I would recommend, however, that the committee be instructed to secure the defeat of any bill which proposes to place the licensing or the registration of physicians in the hands of a board of medical officers. It is morally certain that such a board would be composed almost exclusively of allopathists, and all recent medi-

cal history shows that in the hands of such bodies, the professional rights of the physician and the medical liberties of the citizen are not secure. So long as the present sectarianism prevails among medical men, the licensing of physicians is far safer where it now practically is—in the hands of the incorporated medical colleges.

The increasing influence of Homœopathy upon public sentiment, and the rapid and steady growth of the school, have been already alluded to. Its influence upon allopathic literature and practice is equally apparent. The transfer of homœopathic remedies and homœopathic indications to allopathic text-books goes steadily on. It seems a curious coincidence that, at the same time, allopathic pharmacists are advertising granules containing minute doses of medicine deftly covered in with sugar. Equally curious are the doubts with which the action of these medicines enshrouds the allopathic journals. They do not understand why these minute doses so often succeed after large doses have failed, but they do know they are "*not* homœopathic." They do not know why it is that they cure the same conditions they are capable of producing, but they do know that "Homœopathy is the greatest humbug of the age." These assertions and confessions occur in very many of the allopathic reports of cases cured with these minute doses. The practitioner declares that he bases his prescription "solely upon experience," but he always forgets to state when and how his "experience" was obtained; and meanwhile, the work of appropriation without credit goes steadily and ruthlessly on.

It is barely possible that this constantly increasing employment of well-known but unconfessed homœopathic remedies by allopathic physicians may yet so familiarize these practitioners with the homœopathic method of selecting remedies as that in time it will break down the prejudice against the new system and abolish some of the distinctive lines between the two schools. Desirable as such a result might be, it could not of itself restore unity and harmony to the medical profession. The cause which originally produced medical sectarianism was simply a diversity of medical belief; but the cause which perpetuates it is an entirely different one. If, to-day, the two schools should come to an agreement respecting the truth of the homœopathic doctrine of *similars*, there would yet remain an occasion for uncompromising antagonism between them.

Outside of all medical creeds and dogmas, separate and distinct from all questions of science, there exists a radical difference, a bitter hostility between the medical sects. This antagonism—this hostility—springs from a disagreement upon the question whether the medical profession exists as an end, or only as a means; whether it is the master of the public weal, or only its ministering servant; whether its "dignity" is to be sustained by self-assertion and phariseeism, or by a constant recognition of its fallibility and constant efforts for its improvement; whether medical science shall be artificially restricted by a code of ethics, or developed in all possible directions. But far, far more than all these, whether the physician, at the bedside, shall determine his own professional conduct, or whether he shall be subject to an authority outside the chamber door, which neither he nor his patient can call to an account for lack of skill or for gross malpractice; in short, whether the physician shall administer to his patient the best that his judgment and skill can command, or only the best that his society will allow. *These* are the issues which are keeping alive the antagonisms between medical sects. Only let this middle wall of partition be broken down, and all other distinctive lines will rapidly disappear. Let physicians be permitted to investigate and apply Homœopathy without fear of ostracism or persecution, and it will not be long before all will be homœopathists in belief, from the least unto the greatest, and the only questions will be, not, is Homœopathy true, but, how far does its curative influence extend, and what are the best modes of applying it.

It seems almost incredible that an organization composed of men given to habits of close and rigid modes of thought and study, as all physicians must necessarily be, could consent to occupy, for an hour, so absurd and untenable a position as our allopathic brethren do in respect to medical beliefs and medical practice. According to their code of ethics, they are debarred from employing in their treatment of the sick not only any general principle of practice already proclaimed, but any that may be yet discovered, however certain and efficient it may prove to be, because such practice would, of course, be based upon what they erroneously term "an exclusive dogma." By that same code they condemn Homœopathy, on grounds having no relation

at all to its scientific verity, or to its practical efficiency; their disapproval of it being based, according to their own words, upon its "exclusive" character only.

Suppose the homœopathic law of cure *is* exclusive; it is not a creature of man's devising. The all-wise Author of nature himself ordained it, and it is exceedingly doubtful if the criticism even of the American Medical Association will turn Him from his wise purpose. Why do not these people go about to criticise and find fault with the law of gravitation, or the law of chemical combination? These laws are certainly exclusive. There can be no manifestation of the forces or processes of gravitation or of chemical affinity, save under their influence and control. Why not issue a bull against these also?

But the homœopathic law ("*dogma*," if you prefer the term,) is not necessarily exclusive. Its formula, *Similia similibus curantur*, simply expresses a general fact of nature; but it does not deny, nor even question, the existence of any other fact. Nor, so far as can be seen, does its operation shut out the possibility of any other mode of curative action. Whether drugs can directly cure diseases in other modes than the homœopathic, is a question which the "dogma" itself will not help us to decide. No! no! The real objection to the homœopathic law of cure—that which has arrayed against it the bitter prejudice of the opposing school—is not that it is exclusive, but that it is too all-*in*clusive.

I am not quite done with this subject yet. When it is proposed to unify the schools of medical practice, let me ask, how it is possible for the homœopathic school of physicians to be associated professionally with men who hold that medical questions are to be decided, not by the processes of the laboratory and the hospital, but by the methods of the machine politician? According to the allopathic method of deciding certain medical problems, the properties and habits of the tubercle bacillus, the existence of the invisible corpuscle, the benefits of the antiseptic method, and the curative powers of the homœopathic similimum, are to be estimated, not by the researches of a Koch, a Norris, a Lister or a Hahnemann; not by the observations of those who honestly and intelligently follow the directions of these discoverers, but by the ballots of a majority of a medical society, not one of whose

votes would be challenged, even though the voter could not distinguish an eye-piece from an objective, or a steam atomizer from a saw-mill, and not two per cent. of whom could give a correct definition of Homœopathy, "though 'twere to buy a world of happy days," or even to perpetuate their cherished code. If this statement seems overdrawn, let it be remembered that the right to decide by ballot whether physicians shall prescribe on the principle of similars, implies also the right to say whether they shall employ anti-parasitic treatment in consumption, or antiseptic methods in surgical operations.

It will doubtless be asked, has not the New York State Allopathic Society already receded from this absurd and untenable position? I answer, no. She has simply extended somewhat the privileges of her members; but she has not surrendered her authority to rescind this action whenever she pleases, nor has she in any way intimated that there is any limit whatever to her arbitrary prerogative. All her members still know that she is their absolute mistress, with power to interfere at any time in their professional relationships.

It is not pleasant to say these things respecting a sister sect of the medical profession, but in no other way can it be shown in what consists the cause of medical sectarianism, and where the responsibility for its continuance rests. If I have torn away a mask from the face of our opponent, it is only to show exactly against what and for what our school is contending. Let the word go forth to every corner of our State, that medical unity is possible at any time, even without unanimity of belief. But let it be equally understood, that even *with* unanimity on purely medical questions, there never will be, there never can be, unity or harmony or peace in the medical profession, until the right of one physician to control the medical belief or the professional conduct of any other physician is absolutely renounced and forever repudiated. In our relations with our patients, we, as a school, and as individual physicians, acknowledge no master, save the dictates of conscience and judgment, and the laws of the land, and these only will we obey.

Fellow members, it is because of the facts I have thus stated that we are met to-day as a distinct organization of physicians;

not only to preach this new medical gospel, but also to defend the liberties of those who accept it. In our deliberations we shall sadly miss the counsel of some who, since we met a year ago, have gone into the more immediate presence of the Master Physician—Ashton, Marsden, McClatchey. Distinguished among their brethren, learned, faithful, Christian physicians, every one; what higher earthly tribute could they merit? So long as their names shall linger on our lips and their memory in our hearts, so long may the influence of their teachings and example be seen in our lives. May this occasion be to us all a season of mutual profit and improvement, and from what we shall gather here, may we each be enabled, in the year that is before us, to mitigate pain, to prevent suffering, to avert threatened disasters, and to save precious lives. Our mission, as a distinct profession, is of Heaven; our daily work is holy. Let us walk worthy of the vocation wherewith we are called.

Dr. L. H. Willard moved that the President's Address be referred to a committee appointed by the chair. Carried.

The chair appointed Drs. Willard, Trites and DuFour as Committee on the President's Address.

Dr. Dudley then took the chair.

Every member of the Board of Censors being absent, a temporary Board was appointed, as follows: Drs. J. K. Lee, Philadelphia; W. M. Griffith and M. M. Walker.

On motion, the order of business arranged by the Secretaries was adopted.

The next order of business was the calling of the roll and correcting the addresses of members. The following members and visitors were present:

Members.—Hugh Pitcairn, C. Mohr, L. H. Willard, R. E. Caruthers, P. Dudley, W. M. Griffith, J. J. Garvin, J. E. James, M. M. Walker, W. H. H. Neville, J. H. Young, J. B. Wood, J. E. Jones, A. R. Thomas, R. P. Mercer, Millie J. Chapman, W. H. Bigler, H. N. Martin, S. Griffith, Harriet J. Sartain,

H. F. Ivins, C. M. Brooks, C. Weaver, B. B. Gumpert, H. E. Williams, T. Pratt, B. W. James, H. M. Bunting, T. M. Johnson, D. B. Umstead, G. E. Gramm, M. Macfarlan, J. J. Detwiller, J. W. Detwiller, D. Yoder, J. H. McClelland, J. K. Lee, Johnstown; D. Karsner, J. F. Cooper, H. Augusta Kimball, C. B. Knerr, W. H. Tomlinson, F. W. Boyer, J. K. Lee, Philadelphia; T. S. Dunning, E. S. Sharpless, I. G. Smedley, A. Korndœrfer, J. C. Morgan, M. S. Williamson, C. Van Artsdalen, W. M. Du Four, T. C. Williams, C. W. Perkins, E. Reading, J. C. Guernsey, C. Bartlett, E. D. Doolittle, H. L. Stambach, Anna M. Hawley, B. F. Betts, J. H. Way, H. N. Guernsey.

Visitors.—G. B. Peck, Providence, R. I.; H. C. Allen, Ann Arbor, Mich.; E. Hasbrouck, Brooklyn, N. Y.; W. A. Phillips, Cleveland, O.; C. H. Phillips, Cape May, N. J.; J. Shreve, Burlington, N. J.; W. McGeorge, Woodbury, N. J.; H. F. Hunt, S. H. Quint, Camden, N. J.; I. Cooper, Trenton, N. J.; J. R. Horner, Pittsburgh; W. C. Powell, Bryn Mawr; W. H. Holsberg, Annville; W. P. Weaver, Bristol; L. B. Hawley, Phœnixville; C. B. Fager, Mrs. C. B. Fager, Harrisburg; Mrs. J. J. Detwiller, Easton; Sarah J. Coe, Wilkes-Barre; S. Starr, Chester; I. Crowther, Upland; T. E. Parker, Parkersville; H. C. Wood, West Chester; H. Still, Norristown; Mrs. W. M. Du Four, Williamsport; J. S. Skeels, Albion; J. G. Becker, W. D. Garvin, Bethlehem; A. E. Baker, C. H. Baker, R. C. Allen, W. C. Powell, M. G. Gonzalez, J. H. Reading, C. F. Goodno, P. D. Shemp, Harriet S. French, E. M. Gramm, T. J. Gramm, B. R. Marsden, W. K. Ingersoll, E. K. McGill, C. R. Norton, W. H. Keim, N. A. Saylor, Mrs. J. C. Morgan, Miss Morgan, W. Yearsley, L. B. Griffith, R. C. Smith, Josephine Van Deusen, H. T. Wilcox, E. E. Davis, W. P. Sharkey, A. C. Rembaugh, E. Fornias, Emma T. Schreiner, Lora C. Jackson, Anna M. Marshall, G. W. Titman, Mary Branson, Eliza H. Lang-McClure, Eliza H. Pettingill, W. W. Van Baun, W. T. Maguire, J. S. Thomas, C. H. Beebe, C. H. Stenger, G. W. Marter, E. Van Deusen, S. Fernald, J. J. Griffith, S. Brown, R. Burr, W. H. Cowgill, D. L. Snyder, J. R. Freese, J. N. Mitchell, R. Owen, J. Kemble, Philadelphia.

Dr. J. F. Cooper, Treasurer, presented the following report:

REPORT OF THE TREASURER.

To the Homœopathic Medical Society of Pennsylvania:

Your Treasurer would present the following statement:

Balance on hand at last report, and here accounted for,	$ .61
Received for extra printing,	8.50
Sale of Transactions,	23.00
Dues of Membership,	514.00
Subscriptions,	114.50
	$660.61

Cr.

Balance of Secretary's bill,	$ 41.00
Postage on Transactions,	20.00
Printing and Binding Transactions,	543.20
Balance on hand September 18th, 1883,	56.41
	$660.61

Respectfully submitted,

J. F. Cooper, M.D.,
Treasurer.

The Treasurer's report was referred to an Auditing Committee consisting of Drs. J. B. Wood, I. G. Smedley and J. K. Lee, of Johnstown, who presented the following report:

REPORT OF THE AUDITING COMMITTEE.

Philadelphia, September 18th, 1883.

We, the undersigned auditors, appointed by the Homœopathic Medical Society of Pennsylvania, have examined the accounts of J. F. Cooper, M.D., Treasurer of said Society, and find that he has received the sum of six hundred and sixty dollars and sixty-one cents ($660.61), and paid out six hundred and four dollars and twenty cents ($604.20), leaving in his hands the sum of fifty-six dollars and forty-one cents ($56.41) due the Society.

J. B. Wood, M.D.,
J. K. Lee, M.D.,
I. G. Smedley, M.D.,
Auditing Committee.

The report of the Corresponding Secretary was then presented.

REPORT OF THE CORRESPONDING SECRETARY.

To the Homœopathic Medical Society of Pennsylvania:

Your Corresponding Secretary would report that during the year just closed the usual necessary correspondence has been maintained, but nothing has been received that requires action by the Society.

I would state that exchanges of Transactions have been effected with all the other State organizations that publish their proceedings in book or pamphlet form, and I now have, belonging to this Society, the Transactions of the following societies:

New York State Society, 1866 to 1883, complete except two volumes, one of which is out of print.

Massachusetts Society, 1866 to 1882.

Michigan Society, complete in four pamphlets, 1879 to 1882.

Wisconsin Society, complete in seven pamphlets, 1865 to 1882.

Ohio Society, four pamphlets, 1879 to 1882.

Hahnemann Medical Association of Iowa, complete, 1877 to 1882.

Minnesota State Homœopathic Institute, complete in one volume, 1867 to 1882.

The total expenses of the office for the year, including stationery and printing, are $24.41. The Philadelphia County Society kindly volunteered to print and distribute the announcements of this meeting, thus saving this Society a considerable item of expense.

The usual invitation was extended to all the county and local societies and clubs in the State to contribute papers to this session. The following societies have responded: Philadelphia county, Allegheny county, Lehigh Valley, and that of Germantown. The Society of Northern Pennsylvania has the proving of a remedy in course of preparation, intending to present it to this Society as soon as completed. We are glad to see so many of these organizations becoming interested in this work, and hope the time will soon come when every local society in the State will be thus represented annually.

We have also received papers from two of our corresponding members, Doctor Bernard, of Mons, Belgium, and Doctor Alvarez, of Madrid, Spain, which have been translated by Dr. Strong, and will be presented with the report of the clinical bureau.

In conclusion, we would say that, judging from present appearances, the prospects of this Society were never brighter; there seems to be a disposition among its members to do more work in its behalf, and we feel assured that, with this state of feeling in existence, it will not be long until we have an organization second to none in the country.

Respectfully submitted,

R. E. Caruthers, M.D.,
Corresponding Secretary.

The report of the Publishing Committee was then presented by the Corresponding Secretary.

REPORT OF THE COMMITTEE OF PUBLICATION.

To the Homœopathic Medical Society of Pennsylvania:

Your Committee of Publication would report that in ten weeks from the adjournment of the session of 1882, the Transactions of that session were published and distributed. The volume was uniform in size and style with those of the two preceding years, and contained three hundred and fifty-five pages octavo.

The cost of printing our volume was $543.20. This, with the additional expense of mailing the same ($23.50), makes a total cost of $566.70.

The manuscripts were placed in our hands promptly after the close of the meeting, and we were thereby enabled to issue the book without unnecessary delay.

Respectfully submitted,

R. E. Caruthers, M.D.,
For the Publishing Committee.

Dr. Pitcairn, Chairman of the Legislative Committee, presented the following report:

REPORT OF COMMITTEE ON LEGISLATION.

To the Homœopathic Medical Society of Pennsylvania:

The undersigned Committee on Legislation would respectfully report that immediately on their appointment they held a meeting, and decided upon a plan to comply with the instructions given by you at your last session, held in Altoona, and issued a circular to that end. This circular was mailed to each homœopathic physician in the State, and it resulted in replies from about one dozen, so that your Committee found it impracticable to rely upon the result, because of the want of general interest manifested. Early in the session a bill was introduced to create a Board of Health, but being under the patronage of allopathic physicians, was objectionable to your Committee in many respects, so that they opposed it with all the influence at their command. Late in the session there was a disposition shown to present a bill unobjectionable to us, which was known as "Senate Bill, No. 21, Session of 1883." We then joined forces and endeavored by every means to have the bill passed, but the lines had been so tightly drawn, because of the objectionable bills presented, that we were unable to entirely undo what had been before accomplished, and the result was a failure, because of the absence of several friends, to pass the bill, it lacking one vote of the constitutional requirement in the Senate.

Your Committee was called before the Senate Committee on "Bill for the Disposition of Unclaimed Bodies" throughout the State for clinical use in colleges and hospitals. They favored the same, and it became a law.

All of which is respectfully presented.

HUGH PITCAIRN, M.D., Chairman,
J. H. McCLELLAND, M.D.,
L. H. WILLARD, M.D.,
J. K. LEE, M.D.,
Committee on Legislation.

Dr. M. M. WALKER, in behalf of the delegates to the American Institute of Homœopathy, reported attendance at the meeting at Niagara Falls.

Dr. R. E. CARUTHERS, Chairman of the Bureau of Organization, Registration and Statistics, presented the following report:

REPORT OF BUREAU OF ORGANIZATION, REGISTRATION AND STATISTICS.

To the Homœopathic Medical Society of Pennsylvania:

We are pleased to be able to report that there has been some progress during the past year in the field assigned to us. Retaining the arrangement and classification of societies adopted in our last report, we will endeavor to give some detailed information in regard to each.

State Society.—The number of members of this organization was slightly augmented at the last meeting of the Society, and we now number one hundred and seventy active, and sixteen honorary and corresponding, members. Within the year an increasing interest has been manifested in the affairs of the Society and in its behalf

> Many now work who never worked before,
> And those who always worked now work the more;

but still there is need for greater energy and activity.

We have lost by death, since our last meeting, five of our older members.

County Societies.—The number of associations of this class has been increased since our last report by the organization of the Beaver County Homœopathic Medical Society, and the Society of Schuylkill county, so that we now have ten county or district societies.

Local Societies and Clubs.—There has been increased activity in this class, and it now numbers ten. The Lippe Society, mentioned in our report last year, wishes to be omitted from our lists, as it does not lay claim to being a society organization.

The societies organized since our last report are, the Hahnemannian Medical Society of Reading, the Philadelphia Medical Club, and the Society of Homœopathic Physicians of Northeastern Philadelphia.

Miscellaneous Organizations.—There has been no change in these organizations, except an increase in their membership.

Summary.—We find this year that of the whole number of organized bodies in the State, excluding the State Society, there is an aggregate membership of three hundred and sixty-nine. Of this number sixty-seven were admitted during the year. In the same length of time six have died. But eight members have withdrawn from their organizations, some of these only on account of removals. Five societies have been organized since our last meeting.

Journals.—Our two journals still possess the field, no new competitors having appeared to share the honors with them.

The **College** has taken a step forward in requiring a six months' course of study instead of five. With a graduating class at last commencement of fifty-two, the number of alumni is now swelled to one thousand four hundred and seventy-three. The information in regard to the college that is most gratifying to us is the consummation of the purchase of a large plot of ground on North Broad street, on which it is the intention to erect large and commodious buildings for college and hospital purposes. We are assured that the faculty and trustees intend to use every possible means to give our students an opportunity to acquire a thorough medical education in all its branches.

Hospitals.—We have received reports from ten hospitals and homes, either wholly or in part under homœopathic control. There may be others in the State, but we have as yet no knowledge of them.

The closure of the hospital in Pittsburgh, which was vacated a year and a half ago for the purpose of rebuilding, lessens the amount of work done; but we find that in the remaining nine hospitals, containing two hundred and seventy-five beds, there have been treated six hundred and forty-seven patients. Of these, three hundred and ten have been discharged cured, one hundred and thirty-one relieved, twenty were removed by friends or discharged unrelieved, and thirty-six died—a death rate of five and six-tenths per cent.

The **Dispensaries** connected with four of the hospitals have treated twenty thousand five hundred and twenty-three patients,

and have issued, during the year, fifty thousand nine hundred and fifty-three prescriptions. One new dispensary has been opened, and the dispensary connected with the Homœopathic Hospital of Philadelphia has been reorganized under the name of the Hahnemann Medical College Dispensary.

We have prepared a report in tabulated form containing the items given above, which, with the lists of members of societies so far as obtainable, are herewith presented.

Respectfully submitted in behalf of the bureau,

R. E. Caruthers, M.D.,
Chairman.

HOMŒOPATHIC MEDICAL SOCIETIES IN PENNSYLVANIA.

Name of Society.	When Organized.	When Incorpor'td.	Meetings.	1883. Annual Meeting.	President.	Secretary.	Number of Members.	Admitted Last Year.	Withdrawn Last Year.	Died Last Year.	Annual Dues.	Publications Last Year.
					STATE SOCIETY.							
Homœopathic Medical Society of Penn'a.	1866	Not.	Ann.	Philadelphia, Sept.18,19,20	Pemb. Dudley, M.D., Philadelphia.	R. E. Caruthers, M.D., Allegheny City.	170	9	..	4	$3 00	Transactions.
					COUNTY OR DISTRICT SOCIETIES.							
Hom. Medical Society of County of Phil'a.	1866	Not.	Month	Philadelphia, April.	W. B. Trites, M.D., Manayunk.	C. Mohr, M.D., 555 N. 16th St., Phil'a.	134	20	3	2	1 00	Transactions in pamphlet form. Homœopathic Register and Directory.
Hom. Medical Society of Allegheny County.	1864	Not.	Month 2d Frid	Pittsburgh, December.	R. E. Caruthers, M.D., Allegheny City.	Z. T. Miller, M.D., 1729 Carson St., Pittsb'h.	43	4	2	1	1 00	Proceedings in Journals.
Hom. Medical Society of Chester, Delaware and Montgomery Counties	1858	Not.	Quar.	October.	J. B. Wood, M.D., West Chester.	T. L. Adams, M.D., Berwyn.	27	..	..	1	1 00	
Lehigh Valley Homœopathic Med. Society.	1881	Not.	Bi-Month	April.	Henry Detwiller, M.D. Easton.	F. J. Slough, M. D., Allentown.	20	4	..	..	...	
Hom. Medical Society of Northern Penn'a.	1882	Not.	Bi-Month	Pittston, June 21.	F. D. Brewster, M.D., Tunkhannock.	J. W. Cooledge, M.D., Carbondale,	15	..	..	..	2 00	
Hom. Medical Society of Lancaster County.	1878	Not.	Bi-Month	Lancaster.	O. T. Huebener, M.D., Lancaster.	W. G. Taylor, M.D., Columbia.	11	..	..	..	1 00	
Hom. Medical Society of Crawford County.	1882	Not.	Quar.	Meadville, January.	J. L. Dunn, M.D., Titusville.	E. C. Parsons, M.D., Meadville.	16	2	..	..	1 00	
Beaver County Homœopathic Med. Society.	1883	Not.	Month 3d Thu.	January.	P. D. Liscomb, M.D., Beaver Falls.	W. Raymer, M.D., Beaver Falls.	8	8	..	..	1 00	
Hom. Medical Society of Western Penn'a.	1881	Not.	Semi-Ann.	August.	W. W. Smith, M.D., Kittanning.	W. W. Wolfe, M.D., Freeport.	6	..	..	..	50	

Schuylkill County Hom. Medical Society.	1883	..	Quar.	....	Chas. B. Dreher, M.D., Tamaqua.	T. W. Swalm, M.D., Pottsville.	8	8	..	..	1 00	
					LOCAL SOCIETIES AND CLUBS.							
West Philadelp'a Hom. Medical Association.	1882	Not.	Month last Wed	June.	J. K. Lee, M.D., Philadelphia.	C. R. Norton, M.D., 532 N. 40th St., Phil'a.	10	..	1	..	1 00	
Hom. Medical Society of 23d Ward, Phil'a.	1881	Not.	Month	Holmesburg, October.	N. T. Jerman, M.D., Holmesburg.	W. C. Powell, M.D., 11th & Susq. Phil'a.	13	1	..	1	...	
Philadelphia Clinical Society.	1880	Not.	Bi-Wk Friday.	October.	C. M. Thomas, M.D., Philadelphia.	W. H. Bigler, M.D., 118 N. 12th, Phil'a.	10	..	..	..	1 00	
Hom. Medical Society of Germantown.	1879	Not.	Month	October.	C. Van Artsdalen, M.D. Ashbourne.	M. M. Walker, M.D., Germantown.	9	2	..	2	...	Paper on Gen'l Hygiene to Am. Institute. Paper on Cyanosis to Penn'a State Society.
Hahnemannian Medical Society of Reading.	1882	Not.	Month 1st Thu	Reading, June.	F. R. Schmucker, M.D., Reading.	C. B. Jennings, M.D., 135 S. 8th, Reading.	13	13	..	..	50	
Society of Hom. Physicians of N. E. Phil'a.	1882	Not.	Month 1st Mon	December.	F. O. Gross, M.D., Philadelphia.	W. Peacock, M.D. 2217 N. 6th St., Phil'a.	11	11	..	..	1 00	
Hahnemann Club of Philadelphia.	1872	Not.	Month	April 10.	.....	.....	9	..	..	2	...	Hahnemannian Monthly.
Hering Club of Phil'a.	1880	Not.	Month 1st Wed	Philadelphia, March 12.	E. M. Gramm, M.D., Philadelphia.	F. O. Gross, M.D., 1409 N. 4th St., Phil'a.	9	..	1	..	50	Papers in Journals.
Boenninghausen Club of Philadelphia.	1877	Not.	Month 2d Wed	Philadelphia.	Geo. W. Smith, M.D., Philadelphia.	D. Macfarlan, M. D., 1921 Ches. St., Phil'a.	12	2	1	..	6 00	
Philadelphia Med. Club	1882	Not.	Month 1st Thu	Philadelphia, December.	Wm. T. Magnire, M.D., Philadelphia.	O. S. Haines, M.D., 151 N. 15th St., Phil'a.	11	..	..	..	...	
					MISCELLANEOUS.							
Anatomical Society of Allegheny County.	1874	1875	Month last Fri	Pittsburgh, October.	C. F. Bingaman, M.D., Pittsburgh.	W. J. Martin, M. D., 1708 Carson, Pittsb.	17	..	3	..	6 00	
Hom. Library and Reading Room Association	1881	Not.	....	....	A. R. Thomas, M.D., Philadelphia.	W. H. Bigler, M.D., 118 N. 12th St., Phil'a.	100	..	..	4	3 00 5 00	
Hom. Pharmaceutical Association of Penn'a.	1881	1882	Ann.	Philadelphia.	A. J. Tafel, Philadelphia.	F. J. Slough, M.D., Allentown.	10	1	..	..	...	
American Hom. Publishing Society.	1877	1878	Month	Philadelphia.	A. R. Thomas, M.D., Philadelphia.	C. Mohr, M.D., 555 N. 16th St., Phil'a.	194	16	..	..	...	

HOMŒOPATHIC HOSPITALS IN PENNSYLVANIA.

Name.	Where Located.	When Incorporated.	When opened to Patients.	Name of Resident Physician or Superintendent.	Number of Beds.	Number of Patients Treated last Year.	Number Cured.	Number Relieved.	Number not Relieved.	Number Died.	Sources of Income.
Homœopathic Hospital of Philadelphia.	1116 and 1118 Cuthbert St., Philadelphia.	1868	1871	G. W. Stewart, M.D., L. P. Posey, M.D.	40	265	160	78	19	8	Voluntary Contributions.
Homœopathic Hospital of Pittsburgh.	Second Ave., Pittsburgh.	1866	1866	.....	.....	.....	.....	.....	.....	.....	
Children's Homœopathic Hospital of Phil'a.	914 North Broad St., Philadelphia.	1877	1877	J. P. Iliff, M.D.	20	66	23	16	.....	.....	Voluntary Contributions.
Pennsylvania Homœopathic Hospital for Children.	43d St. and Oregon Ave., Philadelphia.	1880	1877	E. E. Davis, M.D.	25	84	54	10	1	8	Voluntary Contributions.
Infirmary of Benedictine Sisters.	Erie.	Not.	1865	Rev. Mother Dominica.	10	40	30	9	.....	1	Industry of Sisters.
St. Vincent's Hospital.	Erie.	1882	1875	Sister Jerome.	35	122	.....	.....	.....	10	Industry of Sisters.
*Hamot Hospital.	Erie.	1881	1881	E. L. Warr.	25	10	9	.....	.....	1	Voluntary Cont'b's.
Christian Home for Women.	133 Locust St., Allegheny.	1868	1868	Miss E. C. Martin.	25	60	34	18	.....	8	Voluntary Contributions.
Little Sisters of the Poor, Home for the Aged Poor.	Washington St., Allegheny.	.....	1872	Rev. Mother Lambertine, Superior.	95	.....	.....	.....	.....	.....	Voluntary Contributions.
Homœopathic Maternity of Philadelphia.	21st and Diamond Sts., Philadelphia.	....	....	.....	.....	.....	.....	.....	.....	.....	

*This Institution is under allopathic control, but allows any physician to take patients there for treatment. The figures given show the number treated homœopathically.

HOMŒOPATHIC DISPENSARIES IN PENNSYLVANIA.

Name.	Where Located.	When Incorporated.	When opened to Patients.	Name of Secretary or Executive Officer.	Number of Patients last Year.	Number of Prescriptions.	Cost of Conducting last Year.	Remarks.
Dispensary of the Homœopathic Hospital of Philadelphia.	1105 Filbert Street, Philadelphia.	1874	1848 1871	C. Mohr, M.D.	6,984	16,392	$300 00	
*Hahnemann Medical College Dispensary.	.....	.....	1883 May 1.	C. Mohr, M.D.	2,965	5,496	122 00	
Dispensary of the Homœopathic Hospital of Pittsburgh.	154 Second Avenue, Pittsburgh.	1866	1866	W. R. Childs, M.D.	4,015	11,558	1,000 00	
Children's Homœopathic Hospital of Philadelphia; Out-door Department.	Carlisle Street, Philadelphia.	1877	1877	M. S. Williamson, M.D., 29 N. 11th St., Phil'a.	4,500	13,500	.....	Supported by Hospital Association.
Dispensary of the Pennsylvania Homœopathic Hospital for Children.	43d St. and Oregon Ave., Philadelphia.	1880	1877	Mrs. Wm. E. London, 614 N. 40th St., Phil'a.	2,059	4,007	.....	Supported by Hospital Association.
Philadelphia Homœopathic Eye, Ear, Throat and Surgical Dispensary.	.....	.....	.....	.....	.....	.....	.....	

*The Dispensary of the Homœopathic Hospital of Philadelphia was reorganized May 1st, 1883, under this title. The report embraces a period of four months.

HOMŒOPATHIC MEDICAL COLLEGE.

Name.	When Incorporated.	When opened to Students.	Name and Address of Dean.	Length of Yearly Course and time it Commences.	Number of Courses Required.	Number of Students the past Year.	Number of Graduates last Commencem't	Number of Alumni.	Number of Faculty.	Number of Professors.	Number of Lecturers and Demonstrators
Hahnemann Medical College of Philadelphia.	1848	1848	A. R. Thomas, M.D., 1733 Chestnut St., Phil'a.	Six Months. Oct. 1st, 1883.	2 or 3	147	52	1,473	18	10	8

HOMŒOPATHIC JOURNALS IN PENNSYLVANIA.

Name of Journal.	Name of Publisher.	Name of Editor.	When Established.	How often Published.	Form.	Yearly Number of Pages.	Subscription Price.
Hahnemannian Monthly.	Hahnemann Club of Philadelphia.	P. Dudley, M.D., E. A. Farrington, M.D.	1866	Monthly.	Octavo.	768	$3 00
Homœopathic Physician.	E. J. Lee, M.D.	E. J. Lee, M.D.	1881	Monthly.	Octavo.	576	2 00

LIST OF MEMBERS OF SOCIETIES.

[Names of Presidents in SMALL CAPS; Secretaries in *Italics*.]

PHILADELPHIA COUNTY.

Allen, John V.
Allen, Richard C.
Baker, Alfred E.
Baker, C. H.
Banks, J. O. H.
Bartlett, C.
Betts, B. F.
Bigler, W. H.
Birch, J. P.
Branson, Mary
Brooks, C. M.
Brown, Samuel
Brown, S. Hastings
Caldwell, F. E.
Castle, D. M.
Conover, T. F.
Cresson, C. C.
Crumbaugh, J. W.
Davis, W. B.
Dudley, P.
Dunning, T. S.
Egee, J. B. S.
Erwein, F.
Farrington, E. A.
Fellger, A.
Fornias, E.
French, Harriet S.
Gardiner, G. W.
Gardiner, W. H.
Garvin, J. J.
Gause, P. O. B.
Gessler, C. W.
Gilbert, I. B.
Goodno, C. F.
Goodno, W. C.
Gramm, E. M.
Gramm, G. E.
Gramm, T. J.
Griffith, J. J.
Griffith, L. B.
Griffith, Silas
Griffith, W. M.
Gross, F. O.
Groth, H. H.
Guernsey, H. N.
Guernsey, J. C.
Guernsey, W. J.
Gumpert, B. B.
Haines, O. S.
Hamilton, W. C.
Hancock, J.
Hickman, L. M.
Hosfeld, G.
Ingersoll, W. K.
Ivins, H. F.
Jackson, E. B.
Jackson, Lora C.
James, B. W.
James, J. E.
Johnson, Maria N.
Keim, W. H.
King, W. R.
Kirk, G. J. W.
Knerr, C. B.
Knerr, L. J.
Kniffen, J. B.
Koch, A. W.
Korndœrfer, A.
Lang-McClure, Eliza H.
Lee, E. J.
Lee, J. K.
Lewis, J. C.
Lippe, A.
Macfarlan, D.
Macfarlan, M.
Maguire, W. T.
Mansfield, J. R.
Marshall, Anna M.
Marter, G. W.
Martin, H. N.
McClelland, J. H.
Middleton, C. S.
Mitchell, J. N.
Mohr, C.
Morgan, J. C.
Mount, F. D.
Neidhard, C.
Neville, W. H. H.
Norton, C. R.
Parke, G. T.
Parker, G. W.
Pierce, W. A. D.
Powell, W. C. Jr.
Price, F. T.
Raue, C. G.
Reading, J. H.
Reeves, J. M.
Rembaugh, A. C.
Sargent, R.
Sartain, Harriet J.
Seip, C. L.
Sharkey, W. P.
Shaw, A. R.
Shellenberger, C. N.
Shinkle, H. J.
Simmer, E.
Smedley, I. G.
Smith, E. M.
Smith, L. A.
Snyder, D. L.
Stambach, H. L.
Stewart, H. K.
Straube, R.
Strong, J. W.
Thatcher, J. W.
Thomas, A. R.
Thomas, C. M.
Thomas, J. S.
Tindall, Van R.
Tomlinson, W. H.
Toothaker, C.
Trinkle, S. M.
TRITES, W. B.
Van Baun, W. W.
Van Deusen, E.
Van Lennep, W. B.
Wade, J. K.
Walker, M. M.
Wandell, J.
Weaver, C.
Webb, L. W.
Wilcox, H. T.
Williams, T. C.
Williamson, M. S.
Wrisley, J. A.
Young, J. H.
Zerns, W. M.

ALLEGHENY COUNTY.

Anderson, E. O., Braddock.
Bingaman, C. F., Pittsburgh.
Boardman, W. H., "
Borland, W. C., "
Briggs, E. E., "
Burgher, J. C., "
CARUTHERS, R. E., Allegheny.
Chantler, I. B., "
Chapman, M. J., Pittsburgh.
Childs, W. R., "
Cooper, J. Allegheny.
Cooper, J. F., "
Cowley, D., Pittsburgh.
Crawford, J. S., Greensburg.
Dean, E. W., Braddock.
Dinsmore, S. W. S., Sharpsburg.
Edmundson, W. F., Pittsburgh.
Ferson, J. L., "
Fulton, H. W., "
Gangloff, C. H., "
Grimes, T. H., Sewickley.
Herron, C. D., Pittsburgh.
Hofmann, C. H., Pittsburgh.
Hofmann, H. H., "
Horner, J. R., "
Kerns, W. H. H., McKeesport.
McClelland, J. B., Pittsburgh.
McClelland, J. H., "
McIntire, R. L., Allegheny.
Martin, W. J., Pittsburgh.
Miller, H. C., Allegheny.
Miller, Z. T., Pittsburgh.
Pitcairn, R. V., Allegheny.
Putnam, T. J., Pittsburgh.
Ramage, R. H., Mansfield Valley.
Rankin, J. S., Pittsburgh.
Rinehart, C. C., "
Robson, J. W., "
Rousseau, L. G., "
Seip, C. P., "
Shannon, O. R., Allegheny.
Shannon, S. F., Sewickley.
Willard, L. H., Allegheny.
Winslow, W. H., Pittsburgh.

Chester, Delaware and Montgomery Counties.

Adams, T. L., Berwyn.
Brooks, C. M., Philadelphia
Crowther, I., Upland.
Hamer, J. H., Collegeville.
Hawley, L. B., Phœnixville
Hoopes, L., Downingtown.
Johnson, I. D., Kennett Square.
Jones, J. E., West Chester.
Long, S., New Brunswick, N. J.
Mercer, R. P., Chester.
Mullin, S., West Chester.
Parker, T. E., Parkersville.
Perkins. C. W., Chester.
Pratt, Trimble. Media.
Rossiter, E. B., Pottstown.
Starr, S., Chester.
Thatcher, J. W., Philadelphia.
Tomlinson, W. H., Germantown.
Urie, W. T., Chester.
Way. J. H., West Chester.
Williams, A., Phœnixville.
Wood, J. B., West Chester.

Lehigh Valley.

Becker, J. G., Bethlehem.
Bunting, T. C., Mauch Chunk.
Detwiller H., Easton.
Detwiller, J. J., Easton.
Detwiller, J. W., Bethlehem.
Detwiller, W.
Doolittle, E. D., Easton.
Fetherolf, J. A.
Hassler, W. A., Allentown.
Helfrich, C., Fogelsville.
Helfrich, J. H., Fogelsville.
Helfrich, J. H., Allentown.
Heller, H. D., Allentown.
Holben, M. J., Slatington.
Jacobson, E. H., Bethlehem.
Kirby, R. B., Mauch Chunk.
Kistler, A. L.
Slough, F. J., Allentown.
Slough, W. C. J., Emaus.
Yoder, D., Catasaqua.

Northern Pennsylvania.

Arthur, Charles, Scranton.
Baldwin. H. D., Montrose.
Brewster F. D., Tunkhannock.
Brooks, S. A., New Milford.
Bullard, J. A., Wilkes-Barre.
Campbell S. A., West Pittston.
Coe, Sarah J., Wilkes-Barre.
Cooledge, J. N., Carbondale.
Dietz, W. G., Hazleton.
Dreher, — Hazleton.
Dunnell, H. N., Scranton.
Evans, C. E., Providence.
Johnson, T. M., West Pittston.
Leonard, H. K., Plymouth.
Ross, S. C., Scranton.
Vail, J. D., Montrose.
Waters, Carey G., Scranton.

Crawford County.

Dunn, J. L., Titusville.
Frazier, J. B., Conneautville.
Heath, L. R., Spartansburg.
Morrow, J. O., Evansburg.
Parsons, Anson, Springboro.
Parsons, E. C., Meadville.
Pond, J. N., Meadville.
Rose, Susan F., Meadville.
Smith, Byron, Townville.
Smith, E. B., Townville.
Sellew, S. W., Cambridgeboro.
Stoneroad, J. D., Meadville.

Schuylkill County.

Boyer, F. W., Pottsville.
Dreher, C. B., Tamaqua.
Kistler, J. S., Shenandoah.
Klock, H. A., Mahanoy City.
Sandel, J. H.
Snyder, L. A., Ashland.
Straup, W. D.
Swalm, T. W., Pottsville.

Beaver County.

Boyd, G. S., Beaver Falls.
Boyd, J. S., New Sheffield.
Liscomb, P. D., Beaver Falls.
Nippert, G. N., New Brighton.
Raymer, Wm., Beaver Falls.
Smith, G. H.
Thompson, J. G., New Brighton.
Wendt, C. I., New Brighton.

Western Pennsylvania.

Barnaby, A. M., Red Bank Furnace.
Cleeland, J. S., Freeport.
Duff, P. S., Great Belt.
Leake, E. N., Butler.
Smith, W. W., Kittanning.
Wolfe, W. W., Freeport.

Twenty-third Ward, Philadelphia.

Allen, J. V., Frankford.
Allen, R. C., Frankford.
Bartholomew, G. R., Frankford.
Byer, J. B.
Cornelius, R. W. B., Holmesburg.
Jerman, N. T., Holmesburg.
Lewis, J. C., Frankford.
May, N., Holmesburg.
Powell, W. C., Bustleton.
Pratt, H. C., White Hall.
Reading, H. R., Somerton.
Reading, J. R., Somerton.
Reynolds, H., Bridesburg.
Sheetz, H. A., Bristol, Bucks Co.
Umstead, D. B., Tacony.
Weaver, C., Fox Chase.

Hahnemannian of Reading.

Challenger, H. P.
Dreibelbis, S. L.
Goodenough, W. H.
Grosscup, J. G.
Haman, W. A.
Jennings, C. B.
Kline, D. C.
Knerr, L. J.
Marks, W. F.
Pachali, Theo.
Rittenhouse, S. R.
Schmucker, E. Z.
Schmucker, F. R

West Philadelphia.

Lee, J. K.
Norton, C. R.

Germantown.

Karsner, D.
Lukens, B. F.
Malin, John
Malin, W. H.
Mansfield, J. R.
Mullin, W. P.
Tomlinson, W. H.
Trites, W. B.
Van Artsdalen, C.
Walker, M. M.

Philadelphia Clinical.

Bigler, W. H.
Goodno, C. F.
Goodno, W. C.
Ingersoll, W. K.
Knerr, C. B.
Mitchell, J. N.
Mohr, C.
Norton, C. R.
Thomas, C. M.
Trites, W. B.

Philadelphia Medical Club.

Bartlett, C.
Gause, P. O. B.
Haines, O. S.
Ivins, H. F.
Maguire, W. T.
Schwenk, C. S.
Smedley, I. G.
Van Baun, W. W.
Van Deusen, E.
Wade, J. K.
Wilcox, H. T.

Hahnemann Club.

Betts, B. F.
Dudley, P.
Farrington, E. A.
James, B. W.
James, J. E.
Korndœrfer, A.
Middleton, C. S.
Neville, W. H. H.
Walker, M. M.

Bœnninghausen Club.

Buckman, F.
Dunning, T. S.
Hancock, J.
Hosfeld, G.
Macfarlan, D.
Parke, G. T.
Parker, G. W.
Sheppard, H. C.
Smiley, L. F.
Smith, G. W.
Trinkle, S. M.
Zerns, W. M.

Hering Club.

Baker, A. E.
Baldwin, A. M.
Caldwell, F.
Fornias, E.
Gramm, E. M.
Griffith, L. B.
Gross, F. O.
Kehrer, A. B.
Kemble, J.
Knerr, L. J.
MacDonald, J.
McGill, E. K
Pitcairn, Hugh
Sharpless, E. S.
Simon, S. H.
Van Baun, W. W.

NORTH-EASTERN PHILADELPHIA.

Austin, J. H.
Egee, J. B. S.
Gramm, T. J.
Gross, F. O.
Jackson, E. B.
Peacock, Wm.
Richardson, A. J.
Shoemaker, D. W.
Stenger, C. F.
Tait, Alexander.
Thompson, A. M.

ALLEGHENY COUNTY ANATOMICAL.

Bingaman, C. F.
Burgher, J. C.
Chapman M. J.
Childs, W. R.
Cooper, John
Cooper, J. F.
Edmundson, W. F.
Hofmann, C. H.
King, W. R.
Martin, W. J.
McClelland J. B.
McClelland, J. H.
Rinehart, C. C.
Robson, J. W.
Scott, S. C.
Shannon, S. F.
Willard, L. H.

The chairman of the Bureau of Organization, Registration and Statistics, read the report of the Necrologist, Dr. W. R. Childs.

REPORT OF THE NECROLOGIST.

The death roll of this Society has had five names added to it since last we met. Dr. L. M. Rousseau, Pittsburgh; Dr. R. J. McClatchey, Philadelphia; Dr. George W. Malin, Germantown; Dr. A. H. Ashton, Philadelphia; Dr. J. H. Marsden,* York Sulphur Springs.

LOUIS M. ROUSSEAU, M.D.

Louis M. Rousseau, M.D., was born February 2d, 1820, in the city of Quebec; a son of Louis Rousseau, of the same place; graduated from the College of Nicolet, in the District of Three Rivers, in 1837. In 1840 he moved to Bowdoin, Maine, where, in the following year, he matriculated at the Medical College, and entered the office of Dr. Wm. E. Payne, Bath, Me. At the time of his studentship, Dr. Payne was changing his medical views, and this naturally led L. M. Rousseau to look upon the Hahnemannian system with some favor; still, at this time, he did not adopt the faith of the new school.

Dr. Rousseau graduated in 1845. Returning to Canada, he practiced for six years in the town of Cacoana, then moved to Halifax, where he remained until 1865, when he located himself at Pittsburgh, and entered upon the practice of Homœopathy in

*The Necrologist has been unable to obtain information sufficient to enable him to prepare a suitable report.

connection with the late Dr. M. Côté. After ten years' partnership, he withdrew from the firm, and for the last seven years has lived and had his office at 210 Penn avenue, where he died September 25th, 1882.

On April 21st, when returning from the funeral of Mrs. Dr. Burgher, he made this remark to me: "I will be the next one laid to rest by the doctors." Five months after, his prediction is fulfilled.

From the middle of May until September 1st he made but few professional visits. (His attendance at church, however, was always regular and constant.) At this time he seemed to rally, and made his patients happy by his visits. September 21st he was seized, while at his meal, with severe pain in his left chest, arm and leg, lasting for two hours, followed by restless nights and days, until the afternoon of the 25th, when he was again seized with a violent paroxysm, and at 5.35 P. M., he entered into rest.

An autopsy confirmed the diagnosis of his attending colleagues —"Hypertrophy and fatty degeneration of heart."

When the summons came he was found ready. Our friend has been called to take a higher seat. We who enjoyed an intimate acquaintance with the deceased do bear testimony of him. As a husband, he was loving; as a father, he was kind and indulgent; as a citizen, he was upright; as a man, he was excellent; as a friend, he was sincere; as a physician, he was careful and conscientious.

Dr. Rousseau was aged 62 years, 7 months and 23 days. His widow, two sons and five daughters survive him.

In 1865 he became a member of "The Homœopathic Medical Society of Allegheny County;" being President of the same in 1873, and a member of the Board of Censors for a number of years prior to his death. He was one of the original members of *this* Society, and second Vice President in 1879; an original member of the medical staff of "The Homœopathic Medical and Surgical Hospital and Dispensary of Pittsburgh, Pa.," being connected with the obstetrical and gynæcological department at the time of his death. In 1866 he became a member of "The American Institute," and was a member of "The Anatomical

Society of Allegheny County, Pa.," from 1874. His professional brethren bore his remains to St. Paul's Cathedral, where High Mass was held, and thence to St. Mary's Cemetery, where they were entombed. The members of the Medical Society acted as escort.

ROBERT J. McCLATCHEY, M.D.

Robert J. McClatchey was born April 6th, 1836, in Philadelphia, where his early education was received; his classical and scientific training was had at Nazareth Hall, an academy under the auspices of the Moravian Church. He read medicine under the preceptorship of the late Dr. Wm. S. Helmuth, and graduated from the Homœopathic Medical College of Pennsylvania in 1856. He first practiced in the town of Bethlehem, and there continued until the breaking out of the late civil war. Owing to physical disability, he was prevented from going to the front; but, nevertheless, he did efficient service for his country, in raising men, making speeches and patriotic appeals through different parts of the State. In 1863 he resumed the practice of medicine in Philadelphia. He took an active part in re-organizing the Homœopathic Medical Society of Philadelphia in 1866, and was its first Secretary. In June of the same year, at the organization of this, the State Society, at Pittsburgh, he was chosen as Corresponding Secretary, and was re-elected for each of the six succeeding years; and to him should be given the credit for publishing the State Transactions during all these years.

In 1867 he was elected to the chair of Anatomy in The Homœopathic Medical College of Pennsylvania, which position he held for two years. In 1868 he was appointed editor of the *Hahnemannian Monthly*, and held the position for the ten succeeding years. In 1871 he was elected Secretary of the American Institute of Homœopathy, having been a member of the same since 1860. He continued to hold this office until 1879—twice as long as any other individual had ever held the same.

To Dr. McClatchey was mainly due the honor of organizing the Hahnemann Club of Philadelphia, in 1871, and he was chosen its first President, and was re-elected from year to year so long as his life was spared. He was instrumental in securing a charter

for, and establishing "The Children's Homœopathic Hospital of Philadelphia," in 1877. In 1874 he was elected President of this Society. In 1877–78 he held a similar position in the Homœopathic Medical Society of Philadelphia County. He was an honorary member of the Homœopathic Medical Society of the State of New York, and of the Mexican Institute of Homœopathy. Dr. McClatchey, in 1871, published a revised edition of Laurie's Domestic Physician. He also assisted in revising the second edition of Guernsey's Obstetrics. In 1877 he accepted the professorship of Pathology and the Practice of Medicine. This position he held until his death. He was associated intimately with the lamented Carroll Dunham in the work of preparation for the "World's Convention," held 1876. Now comes the time when all the homœopathic world are turning their eyes to him, looking for the publication of the "World's Transactions." "What is wrong?" we hear on every side, and no one seems to think how sadly taxed that over-worked brain must be. Do we hear him complain? No; he only asks for a little more time; working on, staggering under his load, his spirit still willing, but, O, how weak the tired brain. After four years incessant labor, and when order was about being brought out of chaos, his friends are compelled to force him to let go; the strain is over, the tension has been too great and too long maintained; the fibres of the golden cord begin giving way; cerebral disease manifests itself, and for a time life and death contest for mastery. Alas! the battle is a drawn one; he rallies slowly, and when smiles greet him, kind words encourage him, and seeming health flatters him; two years of renewed labor animates him; yet we hear him say to his class, in speaking of the demise of one of their number, "As we grow older, and death comes nearer, we come to regard it with less dread; when we would naturally fear most, we fear it least. I am not an old man, but when you get to be as old as I am, you will have found that the dying hour of one whose life is well spent, is his hour of triumph. Death in the household is then only hard for those who remain behind; and, as it is the common lot of all, they must bear their grief as best they can, and be assured that death is not the worst thing that can happen."

Is this a dying declaration we hear from lips which soon will

sealed be? Certain it is, he looked forward without fear. In a very short time—less than two years—the conflict is renewed; death steals upon him unaware, and while in conversation with his family at the close of a Sabbath day, a shaft is discharged with unerring skill, it finds lodgment in a vital part; then, after a few hours' struggle, the soul of Robert J. McClatchey goes out upon its flight to the great beyond. At high noon of Monday, January 13th, 1883, our friend was called from labor to refreshment.

'Tis our eyes that weep; there are no tears where he has gone.

Dr. McClatchey was twice married; he first united with Miss Mary J. Milner, of Philadelphia, a lady of the most lovely Christian and domestic qualities. Three children were born of this union, two of whom, both daughters, are now living; the other, a son, died in infancy. Mrs. McClatchey died October 7th, 1875, the evening before the meeting of this Society, of which her husband was then the presiding officer. Subsequently he married Miss Harriet A. Senseman, who survives him, and who has been to him and to his children all that a noble, devoted Christian womanhood can prove to the heart and home of a man —a companion, counselor, comforter, protector and friend.

Dr. McClatchey was a pronounced Christian man; a believer in the Supreme Ruler; he was a member of the congregation of the First Moravian Church of Philadelphia, and for fifteen years a member of its Board of Elders.

The literary labors of the deceased are scattered through the medical journals of Homœopathy and Society Transactions. His work will live and bear rich fruit, to be culled by those who walk the paths in which he trod, long after the present generation has passed the border land.

In this death the State Society has sustained a grievous loss. Let us not mourn as those who are without hope, but rather strive to emulate his zeal, guard well the rich inheritance he has left us; take up the work where he left off, and plant our standard still farther to the front.

When a leader falls, the sad news is swiftly spread about. Many meetings were held to take appropriate action in reference to this death, and place on record a fitting tribute to his worth.

Such action was taken in his native city, by "The Philadelphia County Homœopathic Medical Society;" by "The Homœopathic Medical Society of Allegheny County;" by "The Hahnemann Medical College of Philadelphia;" by "The Hahnemann Club of Philadelphia;" by "The Hering Club of Philadelphia;" by "The Alumni Association Class of 1881" and "Class of 1882;" by the different homœopathic medical colleges in our country; by all the homœopathic journals at home and abroad; by the Board of Elders of the First Moravian Church of Philadelphia, and by many expressions in the press of the city where he lived and labored through this preparatory stage of life.

GEORGE W. MALIN, M.D.

George W. Malin, M.D., was born August 3d, 1803, and died January 18th, 1883. Your Necrologist has not been able to get a history of where our late member was born, or where he was educated, or of what disease he died. The *Presbyterian Journal* gives us the following:

A BELOVED PHYSICIAN.

George W. Malin, M.D., deceased, was buried from the residence of his son, Dr. John Malin, of Germantown, on the 22d inst. This decease has been deeply and widely mourned. Dr. Malin was a man of no common character as a citizen and a Christian, and of distinguished eminence in his profession, which he had pursued for nearly fifty years. His early practice was that of the Old School, but nearly forty-four years ago he became an homœopathist, and for some little time pursued this practice in Western New York with much success. Nearly forty years since he came to Germantown, where he soon secured a large and lucrative practice, embracing many of the most intelligent and wealthy families of that part of the city and surroundings. He died in the 81st year of his age, leaving two sons, successful practitioners, as successors, Drs. John and William Malin, his only surviving children.

Dr. Malin was the eldest of a family of children. One died in infancy, the rest lived to enter into family relations, leaving now as the only survivor Rev. Dr. David Malin, well known and

esteemed in the ministry, and, we are happy to add, still preaching acceptably, and performing much other ministerial and pastoral labor. On the paternal side the family had a Quaker origin of the orthodox and Penn character; on the maternal side its heredity extended through successive generations of Presbyterians. All the children of this family were born in this city; all were baptized in their infancy, and trained up under the best of orthodox influences. All became early professors of religion. The subject of this brief memorial was a consistent, active Christian, and his prayers and Christian counsel made him successful in his medical practice, and made him also useful in advancing the spiritual welfare of those who sought the benefit of his skillful, professional service.

He died in peace, in perfect possession of his mental faculties, ready to go, trusting in the meritorious work of Christ alone for acceptance, exclaiming, among other utterances, "Jesus—Precious Name: the only name given among men whereby we can be saved." "Father," was his last prayer, "not my will, but thine be done."

ADOLPHUS H. ASHTON, M.D.

Adolphus H. Ashton was born May 18th, 1826; died February 17th, 1883, of "Brights' Disease." Dr. Ashton graduated at the "Homœopathic Medical College of Pennsylvania," in 1852; he became a member of "The American Institute" in 1858; a member of this Society in 1876. He was Treasurer of the "Philadelphia County Homœopathic Medical Society" from the time of its reorganization in 1866, until his death. He was a member of the "Hahnemann Club" of Philadelphia; was one of the founders of the Children's Homœopathic Hospital of Philadelphia, a member of its Board of Directors and of its medical staff.

In 1860 he was elected professor of the chair of "Obstetrics and Diseases of Women and Children" in the "Homœopathic Medical College of Pennsylvania," but withdrew from the college without having delivered a single lecture. He was one of the Curators of the Hahnemann Medical College, and held this position at time of his death.

Dr. Ashton was of a naturally modest, retiring disposition, and

but rarely obtruded his opinions upon journals or societies; at the same time he was zealous for the welfare of Homœopathy, and the progress of every movement designed for its advancement and honor. He was possessed of all the noble characteristics of a good physician, a true gentleman, and an humble Christian.

The Board of Censors, during the session, reported favorably upon the following applications for membership, and the applicants were elected:

Allen, Richard C., M.D., Frankford,	Hahn. Med. Coll. of Phila.,	1868.
Baker, Alfred E., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1880.
Branson, Mary, M.D., Philadelphia,	Women's Medical College,	1873.
Brown, Samuel, M.D., Philadelphia,	Hom. Med. Coll. of Penna.,	1858.
Burr, Richard, M.D., Philadelphia,	University of Pennsylvania,	1846.
Coe, Sarah J., M.D., Wilkes-Barre,	Hom. Dep't. Mich. Univ'ty,	1878.
Cooledge, J. W., M.D., Carbondale,		
Crowther, Isaac, M.D., Upland,	Hahn. Med. Coll. of Phila.,	1880.
Davis, E. Everett, M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1881.
Fornias, Edw., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1880.
Gause, Percy O. B., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1881.
Gramm, Edward M., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1880.
Gramm, Theo. J., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1881.
Gross, Francis O., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1880.
Hancock, Jos., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1878.
Hassler, W. A., M.D., Allentown,	Jefferson Medical College,	1866.
Helfrich, J. H., M.D., Allentown,	Penna. Medical College,	1846.
Holben, M. J., M.D., Slatington,	Hahn. Med. Coll. of Phila.,	1875.
Horner, J. Richey, M.D., Pittsburgh,	Cleveland Hom. Hosp. College,	1883.
Jackson, Lora C., M.D., Philadelphia,	Boston University,	1880.
Maguire, W. T., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1882.
Marshall, Anna M., M.D., Philadelphia,	Boston University,	1879.
McClure, Eliza H. Lang, M.D., Phila.,	Boston University,	1877.
Mitchell, J. Nicholas, M.D., Phila.,	Hahn. Med. Coll. of Phila.,	1873.
Mullen, Wm. P., M.D., Germantown,	Hahn. Med. Coll. of Phila.,	1880.
Parker, T. Ellwood, M.D., Parkersville,	Hahn. Med. Coll. of Phila.,	1880.
Pettingill, Eliza F., M.D., Philadelphia,	Woman's Med. Coll. of Penna.,	1864.
Powell, Wm. C., M.D., Bryn Mawr,	Hahn. Med. Coll. of Phila.,	1879.
Reading, J. Herbert, M.D., Phila.,	Hahn. Med. Coll. of Phila.,	1878.
Ross, Seavor C., M.D., Scranton,	Hom. Dep't Mich. Univer'ty,	1881.
Rousseau, L. G., M.D., Pittsburgh,	Cleveland Hom. Hosp. College,	1883.
Saylor, N. A., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1880.
Schreiner, Emma T., M.D., Philadelphia,	Hom. Dep't Mich. Univer'ty,	1880.
Sharkey, Wm. P., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1875.

SHEMP, P. D., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1879.
SKEELS, J. S., M.D., Albion,	West Reserve Med.Coll ,Clev ,	1848.
SLOUGH, F. J., M.D., Allentown,	Hom. Med Coll. of Penna.,	1862.
SLOUGH, W. C. J., M.D., Emaus,	Hahn. Med. Coll. of Phila.,	1869.
STARR, SAMUEL, M.D., Chester,	Hahn. Med. Coll. of Phila.,	1869.
STEWART, H. KNOX, M.D., Philadelphia,	Hom. Med. Coll. of Penna.,	1869.
STILL, HORACE, M.D., Norristown,	Hahn. Med. Coll. of Phila.,	1877.
VAN BAUN, WM. W., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1880.
VAN DEUSEN, JOSEPHINE, M.D., Phila.,	Woman's Med.Coll.of Penna.,	1873.
WEAVER, W. P., M.D., Bristol,	Hahn. Med. Coll. of Phila.,	1883.
WOOD, H. C., M.D., West Chester,	Hom. Med. Coll of Penna.,	1867.
YEARSLEY, WM., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1881.

For Honorary Membership:

ALLEN, H. C., M.D., Ann Arbor, Mich.
PHILLIPS, W. A., M.D., Cleveland, Ohio.

For Corresponding Membership:

HUGHES, RICHARD, M.D., Brighton, England.

Dr. WM. B. TRITES extended an invitation from the Board of Directors of the Homœopathic Library and Reading Room Association to the members of the State Society to visit the rooms at 5.30 P. M. to-day. Invitation accepted.

Drs. Wm. A. Phillips, of Cleveland, Ohio; H. C. Allen, of Ann Arbor, Mich., and E. Hasbrouck, of Brooklyn, N. Y., were then introduced to the Society, and cordially invited to take part in the discussions.

REPORT OF THE BUREAU OF OBSTETRICS.

Dr. MILLIE J. CHAPMAN, Chairman of the Bureau of Obstetrics, presented the following papers, which were accepted and referred to the Publishing Committee:

Puerperal Convulsions, by R. E. Caruthers, M.D.
Puerperal Mania, by S. W. S. Dinsmore, M.D.
Statistics of Two Hundred Consecutive Cases of Obstetrics, by J. N. Mitchell, M.D.

PUERPERAL CONVULSIONS.

BY R. E. CARUTHERS, M.D., ALLEGHENY.

Mrs. X., aged 20 years, a primipara within a few days of the completion of her period of gestation, was taken, at 2 o'clock in the morning of Friday, July 13th, 1883, with an attack of cholera morbus. The attack lasted until daylight, at which time the discharges ceased, and, with the exception of some soreness through the bowels, she felt no discomfort.

During the day she felt some aching and pains in the back, which increased in severity until between 9 and 10 o'clock in the evening, when they developed into regular labor pains. When I was summoned, at 11 o'clock, the os uteri was beginning to dilate and the membranes to protrude. Examination disclosed a pelvic cavity of normal form and average capacity, and a labor of the average duration in a primipara was expected, but the pains increased in force and frequency, so that by 1 o'clock the head was bearing down with great force and distending the perineum to such a degree that rupture was momentarily expected. This did not occur, however, and at ten minutes past one, of the morning of the 14th, the child was born. The placenta followed in about ten minutes, and this terminated a labor that was unusual, to me, in its brevity. I remained with her until 2 o'clock, and left her feeling comfortable, having had all her wet and soiled clothing removed.

About 4.30 A. M., her mother-in-law, who was her nurse (and by the way a most efficient one), noticed that she had a sort of choking or gagging spell, lasting but a moment, accompanied by vomiting or spitting out of bloody water from the mouth. I was sent for, but found her resting quietly, seeming drowsy, which I accounted for by the fact that her rest had been disturbed for the two nights previous. At 8 A. M. she had a similar spell, which was not so severe. At 9 o'clock she had a general convulsion, and another half an hour later. I saw her just after the last one, and found her dull, heavy and only semi-conscious. She could be roused and made to answer questions, but immediately dropped off asleep, breathing heavily. The remedy that seemed to be indicated was opium, which was prepared in water, and given at intervals

of ten or fifteen minutes, and chloroform was kept at hand to be given by inhalation during the paroxysms.

Two convulsions occurred, one at 11 o'clock and one at 12.25, both of them severe, and the patient becoming more and more comatose between the paroxysms.

At noon, counsel was called, and the remedy being exhibited was fully endorsed and the continuation of the chloroform recommended. Gelsemium was spoken of as a remedy that might be useful.

During the afternoon she had five spasms up till 6 o'clock. The longest interval between them during this time was two hours and a quarter. At 6 o'clock another physician was called, at the request of the patient's mother, who, after carefully examining the case and witnessing two or three paroxysms, suggested belladonna or gelsemium. The former having been given early in the morning, it was not considered expedient to repeat it, so gelsemium, tincture, fifteen drops in a half goblet of water, was prepared, a teaspoonful of which was given every half hour.

We had noticed during the afternoon, that while the patient had been restless, tossing about a great deal, and rolling from side to side, yet, before the spasm would return she would always settle down on either side and sleep or lie quietly for from ten to twenty minutes, then the eyes would turn up and the characteristic motions would commence. Observing that this occurred pretty uniformly, we thought it probable that we might, by giving the anæsthetic during this quiet interval, prevent, or at least mitigate, the spasm, for when administered during the paroxysm it seemed to have no influence whatever.

This was done, but in spite of our efforts convulsions occurred at 6.18, 6.45 and 7.50 P. M. At this time I left her in the hands of a colleague, and on my return, at 9.30, found that she had not had a severe paroxysm, but that during the whole time there had been a tendency thereto, evidenced by an almost constant twitching of the eyelids, which was controlled by the continuous, free administration of chloroform. After my return the chloroform was withdrawn, but there was no spasm until 11.40, which was a well marked one, lasting three minutes, the time being noted by a brother of the patient who was present. Another spasm occurred

at 1 A. M., after which, at about 2 o'clock, I sat down determined to prevent the paroxysms by the continuous administration of chloroform, if it was possible, and to this end continued giving it until 5 A. M. (three hours), during which time there was no sign of a fit. At this time she was resting so quietly that we thought the chloroform might be withdrawn, which was done.

During the next two hours she seemed to act exactly as one does who is recovering from the effects of chloroform inhalation, yawning, turning about and partially opening the eyes, relapsing again into a quiet sleep. About 7 o'clock she seemed to become semi-conscious, raised up in bed, looked around the room, and seemed to recognize her brothers who sat near her, smiled, and lay down again. Ten minutes after this she had another convulsion, which lasted one minute, but it was observed that during this one the face did not get so much discolored, the blueness leaving the lips very speedily. After this she relapsed into the unconscious condition, remaining so all that day (Sunday), without any indication of a return of the convulsions.

In the afternoon it was noticed that the hands, which had been very much swollen, had become more natural, and the finger-nails, which had been very dark blue, were regaining their normal tint.

During the evening there seemed to be an effort at regaining consciousness, but this was not successful until Monday morning, when she was found to be conscious, and continued so, although she seemed to be bewildered, and it was not until she had five hours' sleep on Monday night that she awoke refreshed and with her head feeling clearer.

The urine was retained, probably from injury to the urethra by the passage of the child's head, none being passed from the completion of the labor until noon on Saturday (eleven hours), when about a pint of urine, a little darker than normal, was drawn. The catheter was again introduced at 4 A. M. of Sunday, and the urine was about the same in quantity and appearance, but its odor was rather offensive. She urinated naturally on Sunday evening, the discharge at that time being very offensive. After this the urine continued to pass naturally, and gradually became normal, though this offensive odor persisted for two or three days longer.

On Saturday evening at about 5 o'clock, we discovered that she

had no use of the right arm and leg. This continued for six hours, when she gradually regained full power.

On regaining consciousness on Monday morning she complained of being "twisted." We could get no idea at the time as to the character of this sensation, but on questioning her a few days later she said that the whole right side—that that had been paralyzed—felt as if it was drawn.

Though to many of those present this case will hardly be deemed worthy of remark, yet to me it was one of great interest, as it was the first of its kind that had occurred in my own practice. Moreover, those cases that I had seen in consultation with other physicians having all proved fatal, I had serious doubts, and in fact was almost hopeless of recovery.

There seemed to be no apparent cause for the attack. She had been in comparatively good health during the entire period of gestation. The morning sickness which began almost from the moment of conception continued to the last, but was not severe and did not impair her appetite—in fact, she did not feel well in the morning until she had vomited.

I have no doubt that the labor was precipitated by the attack of cholera morbus, but it could have been but a few days only, for she had had a profuse discharge of mucus from the vagina for two or three days previously, and had observed the settling down into the pelvis of the womb and its contents; and the child when born was perfect in its development.

There had been no symptoms of albuminuria; no dropsical conditions, and in fact nothing had occurred to cause anxiety as to the result of the acconchement.

We observed, as stated previously, that the use of chloroform during the spasms was of no avail. On reflection this is what might be expected, for during the convulsion the inspiratory muscles are in a state of contraction and a condition of apnœa prevails, and as the chloroform must be inhaled to allow it to act, it is useless to give it at this time. Besides this, during the spasm, on account of the deficient supply of oxygen, the blood becomes super-carbonized, and we should use every means in our power to supply a greater quantity of oxygen, and not adulterate the small amount that can be inspired by the vapor of chloroform or any other substance, lest we increase the danger of asphyxia.

The amount of chloroform consumed was one and a quarter pound. We were a little fearful that there might be some troublesome after-effects from the use of so much, but, feeling that it was the only chance for the patient, we took the risk. Fortunately, aside from some peculiar nervous manifestations for two or three days, there was no evil result.

While we cannot formulate a course of treatment on the result of one case, yet, should another case of puerperal convulsions occur in my hands, I should approach it with less trepidation, believing that in the free use of chloroform we have a valuable auxiliary, and, with persistent, personal attention on the part of the physician, and the use of the remedy that seems best indicated, it is possible to greatly lessen the mortality from this disease.

PUERPERAL MANIA.

BY S. W. S. DINSMORE, M.D., SHARPSBURG.

Since June 18th, 1883, I have attended twelve cases of confinement. Of this number, four were primipara and eight were multipara. The children were equally divided as to sex and are all at present in good health.

In two cases, forceps were used; in one the long, and in the other the short. In no case was an anæsthetic given. In the cases requiring forceps, there was no after trouble. Of the other cases, three have had endometritis, three have had puerperal mania, one metritis, and one basilar meningitis, resulting in death on the tenth day after delivery. With the cases of endometritis, I had counsel once with Dr. Willard; with the case of metritis, counsel with Dr. Cooper. The cases of mania have all recovered.

It does not seem fitting to burden this meeting with a history of this disease, in fact its literature seems very limited as compared with other puerperal diseases. In the Transactions of the American Institute for 1872 will be found a paper by Dr. J. C. Burgher, and in the Transactions of 1880 a paper by Dr. H. H. Hofmann, to which I refer you for a more extended history of this disease.

July 5th, 1883, about 5 P. M., I was called to see Mrs. M—— in her sixth confinement. She is aged about twenty-eight, dark complexion, dark hair and eyes, has been married twelve years, and had one miscarriage. Her last babe was born April 12th, 1882. She was then just recovering from an attack of intermittent fever, and there was not sufficient milk secreted for the babe, which thrived but poorly on artificial food. She was very slow in recovering from its birth. This labor was rapid and easy, the first male child she had ever born, and it weighed probably eight pounds. I made a visit each day following, and found no occasion for giving medicine, until about noon on the fourth day, when her husband came to tell me that she had had a slight chill. I sent aconite[3], and called in about two hours, and found her pulse 132 and temperature $102\frac{1}{5}°$, with free perspiration. The aconite was continued. The following morning her pulse was 108 and temperature $101\frac{4}{5}°$. She had had very little sleep, and was nervous and restless. I gave aconite[3] every half hour, and in the evening, finding the pulse 132 and temperature 103°, I gave veratrum[3] and arsenicum.

The next morning, the sixth day after confinement, she seemed much improved; pulse 90 and temperature 101°, with free discharge from the vagina. About an hour after my visit a messenger came to tell me she was much worse. When I arrived she was sitting up in bed, with her hair loose and her eyes staring, and she greeted me with, "Well, doctor, I'm in hell, and you soon will be!" It was with the greatest difficulty that she could be restrained from doing herself injury. I gave her hyos.[3] This was at noon, and this condition continued till evening. When I saw her again in the evening her pulse and temperature were much reduced; pulse 84, temperature 98°. The forepart of the night she spent in clapping her hands, and telling her friends she was in heaven. The afterpart of the night she got some sleep. The next morning her pulse was 150 and temperature 104°; skin hot, dry and red. I gave bell. and stram. She seemed dazed and unable to realize what had occurred, but had no more attacks of mania. From this time her pulse and temperature gradually became normal under the use of these remedies, with an occasional dose of asafœtida.

On July 16th, eleven days after her confinement, her pulse was 84 and temperature 98⅖°. There was some tympanites and offensive discharge. An injection of a five per ct. solution of carbolic acid was used with benefit. Her diet consisted principally of beef-tea, oat-meal gruel, milk, etc.

Case number two was never so violent, but the same symptoms were present, lasting four or five days, and then gradually subsiding. The remedies most used were ignatia and hyosciamus.

Case number three, a primipara, had a chill on the third day, followed by a temperature of 104°, which gradually came down under belladonna and veratrum viride until it reached 102°, when, on the eighth day, without any warning, she became maniacal, and exhibited about the same train of symptoms as case number one. Several times within the next week she seemed on the verge of mania, but a few doses of hyosciamus seemed sufficient to quiet her nerves. She is yet under treatment, and is rapidly recovering.

I have been puzzled to account for so much post-partum difficulty. I have used more than ordinary care with these cases, and those cases in which the labors were the most severe, even unto instrumental delivery, were the most rapid in recovering.

Hyos., stram., bell. and ignatia, in the order named, were the remedies most called for. I usually gave them in the potencies ranging from the third to the sixth.

STATISTICS OF TWO HUNDRED CONSECUTIVE CASES OF OBSTETRICS.

BY J. NICHOLAS MITCHELL, M.D., PHILADELPHIA.

Statistics in obstetrics under homœopathic treatment are very few in number, and these few are so scattered here and there in different journals as almost to be of no service. To report here and there a special operation or a brilliant result attained by the exhibition of some drug or drugs, can be of only small benefit in comparison with the examination of a large number of cases, containing an average percentage of easy and difficult cases, in order to arrive at a conclusion of the benefits to be derived from the use

of the homœopathic as against the allopathic treatment. To correct this want, I would suggest to the members of this Society, that from time to time they report their cases and the results of their treatment. In order that these reports, however, may be of the greatest benefit, it is necessary that they should be universally made by all, and not alone by those who have devoted special attention to the practice of obstetrics, as, from these latter reports containing an higher proportion of operations of all kinds, a greater percentage of deaths may, of course, be expected, from the likelihood of such practitioners being called upon by their fellows to assist and operate for them. Such reports as I speak of have already in part been made by two members, at least, of this Society, and I propose, this year, to add the following synopsis of two hundred consecutive cases attended by me:

Presentation—Vertex.	Position—R. O. A.,	9
	" R. O. P.,	12
	" L. O. A.,	80
	" not diagnosed,	83
" Breech,	- - -	7
" Face,	- - -	2
" Trunk,	- - -	7
Total,	- -	200
Twin labors,	- - - -	3
Placenta-Prævia,	- - -	4
Mothers died,	- - 0	
Children "	- - 3	
Puerperal Convulsions,	- - -	11
Deaths,	- - 5	
Forceps cases,	- - - -	37
Versions,	- - - -	10
Decapitations,	- - - -	1
Craniotomy,	- - - -	3
Complication with ovarian tumor,	- -	1
Puerperal hæmorrhage—severe,	- -	7
Causes—Inversion of uterus,	1	
Apparently from fright,	1	
Inertia, - -	4	
Lacerated cervix,	1	

Total number of deaths,		8
Causes—Peritonitis,	1	
Scarlatina,	1	
Convulsions,	5	
Embolus? 7 hours after craniotomy,	1	

My cases of placenta prævia were treated as follows: No. 1 had several severe hæmorrhages in the seventh month before I was called upon to take charge of the case. In the middle of the eighth month labor came on accompanied by so much hæmorrhage as to be alarming in a few minutes. Attempts were made to arrest this by tamponing the cervix with Barnes' dilators, but they failed. Fortunately the os was torn at a former labor and was capable of being quickly dilated by the hand, which was then passed into the uterus, and the placenta, which was almost central in location, was completely separated from the uterus. Hæmorrhage was very great for a few seconds and then stopped. The placenta came away through uterine contractions in about thirty minutes, and the child was born naturally three hours afterwards. The mother suffered from pelvic cellulitis, but made a good recovery and has since had a natural pregnancy.

Nos. 2, 3 and 4 were treated alike by tamponing the cervix with successive sized Barnes' bags until the cervix was dilated enough to permit of the passage of the hand, when the placenta was separated on one side from the uterus, the bag of water broken and the child turned and delivered. In No. 2 the child was alive and strong when seized, but delay in delivering the head, owing to the male character of the pelvis, caused death. In No. 3 the child was safely delivered and lived. In No. 4 hæmorrhage had lasted for a number of hours, only partially stopped by a vaginal tampon, and the child was dead when I first saw the case. All the mothers were saved. In the three cases calling for craniotomy, No. 1 was in a pelvis contracted in the conjugate diameter, and forceps had been applied and slipped a number of times. The head was pierced through the vertex; good recovery. No. 2 was in a woman with a small contracted pelvis in all the diameters; the body of the child had been delivered some twelve hours before and the head left in the uterus. The uterus had contracted on and around the head and the os was partially closed. I dilated

the os with Barnes' bags, perforated the skull and delivered with the craniotomy forceps. The woman made a good recovery. No. 3 had been in labor a number of hours, and many attempts had been made to deliver with the forceps. When I saw her I thought delivery might be accomplished by version. Version was accomplished with ease, but the head could not be brought through the pelvis. I perforated the head through the occipital bone, emptied out the brain and delivered with the craniotomy forceps. The mother had been very weak throughout, but rallied well after the operation under stimulation. Between six and seven hours after delivery she got out of bed and walked into the next room, a bath room, to use the water closet; she had to be supported back to the bed, became cyanotic with oppressed and rapid breathing and died in a few minutes before her physician could arrive at the house. Decapitation was called for in an impacted trunk or shoulder presentation. The mother made a good recovery.

Three of the cases of puerperal convulsions were moribund when I saw them, two dying very shortly after delivery. Two of the cases died with symptoms of apoplexy or effusion. Convulsions had ceased in both after having been very severe and long lasting and paralysis of one side was evident for some hours before death. One of these cases had returned to consciousness and had talked rationally after the convulsions had ceased, but sank into a deep coma on the next day with increasing paralysis, and died three days afterwards.

I may state in explanation of the unusual proportion of operative cases and of convulsions, that many of these were seen by me with other physicians and with the students of the college in the out-department.

DISCUSSION.

Dr. John C. Morgan stated that in the practice of obstetrics he had always looked with horror on the idea of taking infantile life. It had been his good fortune never to have been obliged to resort to that procedure for the purpose of saving the life of the mother. True, he had performed craniotomy, but always on dead

children, and in one case where the child in utero had hydrocephalus. Dr. Lord, after forty years' practice, has stated that he had never been obliged to kill a baby. It was Dr. Morgan's desire to emulate Dr. Lord's example, and place on record the fact that, in a practice of thirty years, he had never been obliged to kill an infant to save a mother.

REPORT OF THE BUREAU OF CLINICAL MEDICINE.

In the absence of the Chairman of the Bureau of Clinical Medicine, Dr. J. K. Lee, of Johnstown, presented the following papers, which were accepted and referred to the Publishing Committee:

Clinical Cases in which some of the less frequently used Remedies were employed, by W. J. Martin, M.D.

A Rare Case of Ascites, by J. E. Jones, M.D.

Locomotor Ataxia, by C. Bartlett, M.D.

Constipation, by J. C. Morgan, M.D.*

Albuminuria, by Allegheny County Society.

Phthisis, by Philadelphia County Society.

Two Anomalous Cases of Intermittent Fever, by Paz Alvarez, M.D.

Clinical Indications to serve for the History of the Homœopathic Treatment of Idiopathic Goitre, by H. Bernard, M.D.

Paralysis of the Radial Nerve, by H. J. Evans, M.D.

Homœopathic Remedies in Malignant Growths, by H. J. Evans, M.D.

* This paper was not received.—Pub. Com.

CLINICAL CASES

In Which Some of the Less Frequently Used Remedies were Employed.

BY W. J. MARTIN, M.D., PITTSBURGH.

It is the object of this contribution to give a few cases confirming symptoms found under remedies not so frequently used as are some in our materia medica. I take it that it would almost be a waste of time to report to this Society cases of such a character that a first course student would be able to prescribe the correct remedy. When Homœopathy was in a more infantile stage than at present, such reports were useful; for purposes of comparison with old school results they are now useful; but for the purpose of adding to our present store of clinical knowledge, they are quite useless.

Mrs. P., primipara, was confined November 15th, 1881. Made a good recovery. In about two weeks after the birth of her child, she told me that since her confinement she could not pass urine in any position except on her knees. This, to say the least, was very inconvenient. A few doses of pareira brava[3] cured.

Last winter I was called to attend Mrs. S., an old lady between fifty and sixty years of age, who had been walking with crutches for nearly a year. She was suffering from some painful affection about the right hip, on account of which she could not use the right leg. The pain was felt only during motion, rest bringing complete relief. She could eat and sleep well, was a little constipated, and, of course, I gave her bryonia, which she took steadily for a week or more without the least benefit. Yet pain in the right hip, preventing walking, with entire relief from pain when quietly sitting or lying down, was the only symptom in the case, and I was surprised that bryonia failed to make any impression, and more surprised, when consulting Allen's Symptom Register and the Encyclopædia, to discover that there is no such symptom under bryonia; but that under dioscorea I found the very symptom the case presented. Dios.[3], a dose every three hours, was prescribed After taking this remedy for about three weeks, the old lady cast aside her crutches, and now moves about as nimbly

as in her more youthful days. If asked what was the matter with this patient, I would have to answer, I do not know, and, to a certain extent, I do not care; but I presume it was a case of sciatica.

Another somewhat similar case was that of Mrs. D., aged about thirty-five years; five months pregnant. She had been lying in bed for a month from pain in the right leg; the pain was felt only when she would move the limb, or when she would sit up; *entire relief when lying still.* The location of the pain corresponded to the point of exit of the sciatic nerve, and its course down the limb. She, too, got bryonia at first, because I had been educated to, or in some manner came to, believe that I must give bryonia when the condition is relieved by rest, and made worse by motion. Bryonia did not do this case any good. Dios.[3] relieved the leg to such an extent that she could move with less pain; but every dose of the medicine was followed by cutting, griping pains in the bowels; and a diarrhœa setting in, the patient quit the medicine, when her diarrhœa and bowel pains ceased. I then prescribed dios.[30], a dose every four hours. In two weeks this patient was able to sit up or walk about, without any pain or inconvenience, and has had no return of her trouble since.

The symptoms of dioscorea, as recorded in Allen's Encyclopædia, certainly entitle it to a prominent place among our remedies for sciatica. Note the following: (1200.) Right leg lame whole length. (1201.) Occasional cramping pains in back side of legs, worse above the knees. (1202.) Dull pain in right leg, whole length, on back side, worse at buttock and heel. (1203.) Right hip lame every day, aggravated by walking, relieved by rest. (1204.) Pain in the right hip in the morning. (1210.) Dull tearing pain in the right hip, hindering walking.

In the spring of 1882, a young man, aged about thirty years, consulted me about a urinary trouble that he had had for some time, viz., after urinating and replacing the penis, a small quantity of urine would invariably dribble down the leg of his pants. No other symptoms in the case; perfectly well in all other respects. I prescribed picric acid [12], which has the following symptom, (Allen's Encyclopædia, vol. VII, pp. 527): "In passing urine it kept dribbling after I got through." A few doses cured the patient, and he has had no return of the trouble.

Another man consulted me about the same time for a similar trouble; picric acid also cured him. Subsequently a third patient, with the same trouble as the above, came under treatment, and picric acid did not cure him. I then tried cannabis ind., which also failed. Petroleum[12] was then prescribed and cured him. The drugs which have produced the symptom are apoc. c., brom., cannab. i., coni., graph., kali c., petrol. and pic. ac.

Last winter I was called to attend a young lady, aged about eighteen years. She was tall, slender, stoop-shouldered, and hollow-chested. She had contracted a cold early in the winter, and several additional colds subsequently. Her cough was gradually getting worse, voice hoarse, chest sore, appetite poor, strength failing, menses becoming scant, pulse over 100, and evening temperature 102½°. The cough was dry and painful, worse at night; chest sore when percussed. Bryonia was given for a time. The temperature came down a little, otherwise no improvement. Phosphorus was next prescribed, but I could not see that the improvement came that should follow the correct remedy. It was now that my attention was called to the violent eructations that accompanied her cough, and which she said were as distressing and exhausting as the cough. This was a new one to me. I hunted it up after I got home and found that ambra grisea is the remedy having this symptom. The next day the patient was put on ambra[12], a powder every three hours. Amelioration of the cough promptly followed. The remedy was continued, and the case steadily improved to a complete recovery. I have seen cases essentially similar to this one progress into and die of phthisis, and fully believe that the ambra saved this young lady from that fate.

A very estimable and intelligent lady of probably fifty years of age has suffered for many years from chronic cystitis, due in all probability to lithiasis, as she has, for a long time back, passed at variable intervals small irregular stones and much sand, at which times the cystitis will be aggravated, and she will often pass considerable blood, in addition to the large quantity of mucus always in her urine. She had tried many remedies from others as well as from me. Sarsaparilla and lycopodium were the remedies I would prescribe, but no very perceptible or lasting improvement

was observed until she commenced taking chimaphila, ten drops of the tincture in a goblet half full of water, two teaspoonfuls every three or four hours. This past year she has been better of both the cystitis and lithiasis than ever before.

A RARE CASE OF ASCITES.

BY JOS. E. JONES, M.D., WEST CHESTER.

During the winter of 1882, Mr. S. B., between 46 and 47 years of age, became gradually dropsical. His legs, arms, face and all tissues showed general anasarca.

In former years he had been quite dissipated, and from certain apparent marks evidently he had been more or less the subject of syphilis in the tertiary form.

At the time of my first visiting him, he was jaundiced, dull, sleepy, with little disposition to exert himself. Some headache, pain over the right side and under the right shoulder blade, bowels regular, water scanty, high colored. Percussion over the liver revealed that organ very much enlarged and extending below the ribs of the right side, almost to the crest of the ilium, slightly sore to the touch, but not giving special discomfort save when he was raising from bed or lying down. The greatest distress he had during the winter and spring of 1882, was that of general anasarca. Apis and helleborus niger at different times, with an occasional resort to nux vomica, relieved the dropsical condition, and the case developed into one of ascites. The other tissues were entirely relieved from the effusion, but the abdomen enlarged rapidly until the amount of water in the peritoneum became a burden and the distension of the abdomen painful. He begged for relief; so on May 29th I drew from him by the ordinary sized trochar, fully fourteen quarts of water which greatly relieved his distress, and after the second night he was enabled to sleep. The first night after each tapping he could not sleep or at least for many of the first operations. The record of his various tappings is as follows:

May 29,	1882,	14	Quarts.	Nov. 17,	1882,	20	Quarts.
June 5,	"	15	"	Dec. 7,	"	22	"
" 10,	"	11½	"	" 23,	"	23	"
" 16,	"	6½	"some lost.	Jan. 5,	1883,	20	"
" 30,	"	14	"	" 29,	"	25	"
July 10,	"	17	"	Feb. 16,	"	23	"
" 22,	"	14	"	Mar. 8,	"	23	"
" 31,	"	17½	"	" 29,	"	23	"
Aug. 6,	"	14	"	April 14,	"	24	"
" 10,	"	16	"	" 28,	"	24	"
" 21,	"	17	"	May 9,	"	26	"
" 30,	"	17	"	" 24,	"	22	"
Sept. 9,	"	19	"	June 4,	"	26	"
" 20,	"	19	"	" 14,	"	27	"
" 30,	"	18	"	" 25,	"	24	"
Oct. 9,	"	19	"	July 6,	"	19	"
" 18,	"	20	"	" 17,	"	21	"
" 26,	"	17	"	" 28,	"	20	"
Nov. 4,	"	18	"	Aug. 13,	"	12	"

About August 10th or 12th he was taken with very violent symptoms, and on the twelfth I noticed a decided giving way in his vital force. A dysenteric diarrhœa having set in he became prostrated and died August 16th, 1883.

It is greatly to be regretted that a post-mortem was not obtained in this case. On August 12th I was suddenly called away and did not learn of this patient's death until the time of his burial, and too late to telegraph to have the post-mortem made. Evidently the pathological condition producing this continued drain was an obstructed portal circulation by an enlarged liver, with induration.

As to treatment. He received at first mostly the apis, hel. nig., nux and apocynum. Then, after the change from general anasarca to ascites, apocy., digit., bell., berberis, canth., leptand. and many others, with very little change in the secretion of the water, but a gain in his general strength.

The whole amount of water extracted was in all 727½ quarts, and counting that which was lost June 16th, 1882, it was fully

730 quarts, which makes within a small fraction of six barrels of water.

At one time a bucketful of the discharge was weighed, and it was found that nine (9) quarts weighed seventeen (17) pounds which would make the whole amount come to one thousand three hundred and seventy-seven pounds.

The fluid was highly albuminous. At first it was clear, but during the latter half of the tappings, it was milky and heavy.

After each tapping he would be quite thirsty for a day or two, but whether he drank or abstained he rapidly filled again, and was most comfortable when moderately full. Often on the second day after the relief he would walk miles with comfort, and to within a month of his death he was accustomed to make considerable exertion.

LOCOMOTOR ATAXIA.

BY CLARENCE BARTLETT, M.D., PHILADELPHIA.

Locomotor ataxia is a disease which was known to the early Greek physicians, yet an accurate knowledge of its pathology and etiology cannot be said to have been obtained even at this late day. For a long time it was supposed to be a form of paralysis. Todd, in 1847, was the first to point out the fact that the difficulty in locomotion was due to an inco-ordination of movement, and not to any lack of muscular power. To Trousseau, Erb, Westphal, Buzzard and Duchenne, we owe much of our recent knowledge respecting the disease. The change of opinions respecting its nature has resulted in it assuming different names, such as progressive spinal paralysis, posterior spinal sclerosis, locomotor ataxia, tabes dorsalis and atrophy of the spinal cord. Locomotor ataxia and tabes dorsalis are, at the present day, the chief titles by which the disorder is known.

Etiology.—Heredity seems to exert but little direct influence in the causation of ataxia. The patient may have inherited a neurotic constitution as shown by the existence of inebriety, neuralgia,

mental disorders, epilepsy, etc., in other members of the family. Cases have been reported by Gowers, Dreschfeld, Carre and Trousseau, where locomotor ataxia has affected a number of persons belonging to the same family, but such cases are exceptional. In Gowers' cases, out of a family of nine, consisting of seven boys and two girls, one of the girls and four of the boys suffered from the disease. The other girl died at ten years of age, of fever. In these cases, the trouble began when the subjects were from eighteen to twenty-eight years of age. In none of the patients was there any affection of the iris or optic nerves, nor did any of them suffer from pains in the extremities. Carre reports eighteen cases of ataxia as occurring in the same family. The grandmother, mother, eight relations of the latter, seven children and one cousin were taken with the disease. The malady known as Friedreich's disease, which has been called the hereditary form of ataxia, is really a form of disseminated sclerosis of the brain and spinal cord.

Sex evidently acts as an important predisposing cause of ataxia. Out of fourteen cases which have been under my charge during the past eighteen months, thirteen occurred in males and but one in the female. Out of one hundred and forty-nine cases collected by Eulenberg, one hundred and twenty-eight were males and twenty-one were females. Hammond has met with but four cases of ataxia occurring in females. This great difference in the predisposition of the sexes to ataxia is doubtless due to different modes of life led by men and women. Men are exposed far more than women to cold and fatigue and other influences which act as exciting causes of ataxia.

Locomotor ataxia is essentially a disease of the middle period of life, the majority of cases occurring in subjects from thirty-five to forty-five years of age. Leubuscher reports a case occurring in a boy three and a half years old. The ataxia and absent reflexes were present. There was, however, a difficulty of speech, which did not improve under treatment. Rosenthal has never met with a case in childhood. The youngest patient in my series of cases was twenty-eight years old.

Occupation exerts a powerful influence in the etiology of ataxia. Those who are exposed to great variations in temperature and

moisture, as engineers, car conductors, car drivers and traveling salesmen, are especially liable to the disease. Soldiers, from lying on damp ground, together with forced marches in cold weather, attended with anxiety and excitement, frequently become subjects of chronic spinal disorders, of which tabes dorsalis is the most frequent. Guelliot and others have reported cases occurring in sewing machine operators. The constant friction of the labia against each other, occasioned by the steady motion of the treadle, by exciting an unnatural erethism of the parts, is said to react unfavorably on the spinal cord, and so produce a sclerosis of the posterior columns.

A group of symptoms simulating those of ataxia not unfrequently appears after the acute diseases, more notably diphtheria, small-pox, typhus fever and pneumonia. Cases occurring after diphtheria are not uncommon. Henderson has reported a case occurring after convalescence from small-pox. These cases all make a good recovery, so that it is doubtful if we have here to deal with a degeneration of the posterior columns of the cord.

Owing to the fact that in its early stages tabes dorsalis is attended with an inordinate sexual desire, associated in some instances with increased ability to gratify that desire, sexual excesses, particularly onanism, have been assigned as a cause. This view was the one most commonly held in the early days of medicine, but is now to a great extent abandoned. Sexual excesses beyond all doubt, may produce a spinal-neurasthenia, and, by paving the way to a neurotic habit, produce an occasional predisposition to the disorder.

The etiological relation existing between syphilis and ataxia is a question to which much attention has been paid. To judge from statistics which are brought forward to favor one side or the other of this knotty question, we are no nearer its solution now than we were in the beginning. Erb, Fournier and Dowse contend strongly that in nearly all cases careful observation will show that the ataxia has been preceded by a chancre at some more or less remote period, and that, in the remaining cases, the absence of any specific lesion may be considered as "not proven." The last named authority, in a lecture reported in the *Medical Times and Gazette*, says that, "so often is syphilis the cause of this

disease that we may with propriety call it syphilitic ataxia." Fournier thinks that nearly all cases of ataxia are due to syphilis, and that, in the treatment of the primary lesion, the fear of ataxia should be considered. Erb, out of one hundred consecutive cases of ataxia, found that fifty-nine gave evidence of chancre, with secondary symptoms, twenty-nine had had chancre, without secondary symptoms, and but twelve gave a history free of syphilis. He is inclined to believe that a portion of this twelve per cent. may have suffered from an urethral chancre, so that the percentage of non-syphilitic cases may be still further lessened. Gowers reports thirty-three cases of ataxia in men. Of these, twenty-three, or sixty-nine per cent., had suffered from a primary sore, with or without secondary syphilis. In fifty-three per cent. there were undoubted constitutional symptoms. The percentage of cases, giving a history of syphilitic infection, was rather greater in the private than in the hospital patients. As a rule, the period between the appearance of the primary venereal sore and the onset of the early symptoms of ataxia is considerable, varying in Gowers' cases from seven to twenty-five years. As strong a case as is thus made out for the specific origin of ataxia by the eminent physicians above quoted, there are other observers, equally as eminent, who claim that "an etiological relation between tabes and syphilis is unsupported either by clinical or pathologico-anatomical facts." In seventy-five cases under the charge of Westphal, chancres had pre-existed in fourteen; secondary symptoms in eleven. Out of twenty cases occurring in women, nineteen had had no venereal infection, and in the twentieth a specific history was doubtful. Lancereaux, of Paris, contends that the lesions of ataxia do not resemble those found ordinarily in cases of syphilitic disease of the nervous system. Dr. Birdsall has collected the statistics of five hundred and twenty-five cases of tabes. Of these syphilis was present in two hundred and twenty-five, or forty-three per cent. The percentage of syphilitic cases varied with different observers from eighty-eight per cent (Erb's), to four per cent (his own). In the cases which have been under my charge, syphilis had existed in about forty per cent. Statistics, then, aid us but little in the solution of this question; and this because in syphilitic patients many extraneous causes may be

operating to produce tabes. Those persons who are the subjects of syphilis are generally given to excesses in venery, and, in some cases to extra indulgence in alcoholic liquors. Among the poorer classes, where syphilis is undoubtedly the most common, the venereal infection is associated with exposure to starvation and cold, anxiety and care, all of which may enter into the consideration of the etiology of the disease. Ataxia was certainly known in the days of Hippocrates, yet we have no certain knowledge of the existence of syphilis in Europe prior to the fifteenth century. Another argument against the causative relation between syphilis and ataxia is found in the fact that syphilitic diseases of the nervous system affect the male and female in the same relative proportions. In ataxia, on the other hand, the vast majority of cases occur in males. We often find it a difficult matter to decide at just what time the first symptoms of a case of ataxia first manifested themselves. Is it not possible, may I ask, that the patient may have suffered from the lightning pains of the pre-ataxic stage (these pains at the time being attributed to rheumatism or neuralgia) at a period more remote than the appearance of the syphilitic sore? Another fallacy that creeps in, in the manufacture of statistics, is the unreliability of the statements of patients when their character for virtue is under examination. Only recently I was examining an ataxic patient on this very point. He distinctly denied ever having had syphilis; yet, after he had gone, a physician, who was present at the time, told me that he had seen the man treated for syphilis some eight years before. Patients may, in some instances, deceive unintentionally. The preceding syphilis may have been of a very mild character, and not considered by the patient as sufficiently severe to require him to place himself under the care of a physician.

In the majority of my cases, where syphilis was acknowledged to have existed, the secondary manifestations had been light and had received but little attention. Pathological lesions other than degeneration of the postero-external columns of the cord, may give rise to ataxic symptoms. For example, we may have a syphilitic spinal meningitis, the inflammation spreading to the substance of the cord itself, may expend its force on the posterior columns, producing the symptoms of ataxia. The disease may be

simulated also by pressure from a tumor growing from the posterior portion of the vertebral canal. Tabes dorsalis usually makes its appearance in patients of from thirty-five to forty-five years of age, and this irrespective of the fact, whether or not the patient has had syphilis. In most syphilitic nervous diseases, we find a very different state of affairs to be the case. Take the case of thrombosis of the cerebral blood-vessels. We cannot tell from the symptoms alone, whether or not the condition had appeared as a result of syphilis. If the case occur in a patient advanced in years, we may suspect the symptoms to be due to atheromatous condition of the blood-vessels, but if it occur in a young man in the prime of life, we may with tolerable certainty assure ourselves that syphilis exists as a factor in the case. From the data at present at our disposal, we cannot fix certainly the true relation between ataxia and syphilis; that they frequently co-exist is undeniable; that there is a relation between them of cause and effect cannot be considered as yet as definitely settled.

Long exposure to the influence of certain mineral and vegetable agents may produce conditions similar to ataxia. A few years ago a series of cases of disease affecting the workmen in the zinc mines of Upper Silesia was reported. The symptoms present (which were only manifested after years of exposure,) offered a remarkable analogy to those of ataxia. One of my patients ascribed part of his ailments to working among zinc fumes. Another one believed that his trouble arose from handling paris green. This last observation lacks confirmation. Arsenic has frequently produced a paralysis of spinal origin, but it has never yet, so far as I know, been credited with being a cause of locomotor ataxia. Tuczek has recently reported an epidemic of ergotism, in some cases of which, the disease assumed an unusual form. Ataxic gait, absent reflexes, and other symptoms of tabes dorsalis were present. A few of the cases died and a post-mortem examination revealed a degeneration of the posterior columns of the cord.

Symptomatology.—The sharp, fulgurant pains, or lightning pains, as they are commonly called, so characteristic of ataxia, are among the first symptoms of this disease to make their appearance. As their name indicates, they are of a sharp, darting character, momentary in duration, and of great severity. They are differ-

ently described by patients. One will compare them to sensations "as if forked lightning darted through the limbs." Another complains of "pains in the limbs, as if a red hot knife was being plunged into the flesh," and still another speaks of them merely as "clawing" or "jabbing" pains. They usually invade the lower extremities first. When the disease is well advanced, there is hardly a part of the body which has not at one time or another, been subject to their visits. They come with no regularity as regards time and location. At one time they appear at intervals of a few seconds or minutes, and after keeping the patient in torture for weeks, perhaps for months, disappear, returning again after the lapse of several years; or, the patient may be at comparative ease during the day, but after night-fall, his sufferings are intense. Cold or damp weather, or a slight draught of air, is frequently sufficient to excite these pains after their disappearance; or, if they are still present, to increase greatly their severity. This aggravation from exposure to damp cold weather often leads patients to describe their trouble as rheumatic, an error which should not deceive the physician, if he take sufficient care to inquire into their true character. In some cases these pains are confined to small, well-defined areas on the skin, in the form of hyperæsthetic spots. In others, as shown by Charcot, they are associated with an herpetic eruption following the course of the nerve which supplies the area affected by the pains. The presence of lightning pains in ataxia, is more or less constant. Erb met with them in fifty-one out of fifty-five cases; Buzzard, in fifty-three cases out of fifty-four. In my own cases, the pains had been present in all at one or another part of their history. The patients frequently described them as "rheumatic" or "neuralgic," still at the same time giving their characteristics so true to nature, that there could be no doubt that they had suffered from the ataxic pains.

A symptom first pointed out by Westphal, and one which may be present prior to the appearance of the lightning pains, is the absence of the patellar tendon-reflex, or "knee-jerk." The presence or absence of this symptom may be tested in several ways. The most convenient, perhaps, is to direct the patient to sit on a chair with the limb flexed, resting with its under surface on the opposite knee. A sharp blow is then applied to the knee immediately

below the patella, either with the edge of the ear piece of a stethoscope, or the side of the hand. In health, a quick upward jerk of the foot follows. Another method, applicable only in patients in male attire, is the following: The patient sits with both feet on the floor, and the legs flexed at a little more than a right angle. The operator then places his left hand on the quadriceps extensor muscle of the leg to be tested, and with the edge of the free hand strikes a sharp blow against the ligamentum patellæ as before, and immediately the quadriceps is felt to contract with a quick jerky movement. In cases where the patient is in his bed and unable to rise, we may test this phenomenon without disturbing him. The limb is extended and exposed. Then the forefinger of the left hand is placed against the upper edge of the patella, pushing the bone gently, but firmly, downwards. Then a sharp blow is given the finger with a percussion hammer, when, if the tendon-reflex be present, the patella is jerked upwards beneath the finger. In subjects with too much adipose, to enable them to cross the limb, the test may be made with the limbs dangling over the edge of a table; or the operator may place one arm under the limb, lifting it from the floor, and resting the hand on the upper surface of the opposite thigh. The blow is then given as above. In making these tests, certain precautions are necessary. If, on a rough examination, the knee-jerk should be found absent, then the knee should be bared and the test again applied. Care should be taken to see that the patient is not restraining the movements of the foot by holding the limb rigid. Some patients, no matter how they may exert themselves to overcome the trouble, will hold the limb so rigid that even in health a smart blow will fail to elicit a response. It is best in these cases, to desist for a while from our efforts at obtaining the tendon-reflex, and engage the patient in conversation, and as soon as his attention is withdrawn from his limbs strike a sharp blow over the ligamentum patellæ. If the reflex is present, this will not fail to elicit it. The value of the absence of the patellar tendon-reflex as a diagnostic symptom of ataxia cannot be overestimated. So far as is at present known, it makes its appearance early in the progress of the disease, coming, probably, before even the first manifestations of the lightning pains. While its absence under certain circumstances leads us to

suspect tabes dorsalis, we cannot make our diagnosis without certain other confirmatory symptoms. Absence of the patellar tendon-reflex may be met with in certain peripheral nerve lesions, in infantile palsy, in diphtheritic paralysis, and occasionally in individuals who are apparently in perfect health. Occasionally, also, we may meet with a case of locomotor ataxia in which the knee-jerk is present. To be characteristic of ataxia, the absence of the patellar reflex must be associated with preservation of the idio-muscular contractility of the quadriceps extensor. If one of the limbs be thrown over the opposite knee, as in testing for the patellar tendon-reflex, and a sharp blow be given to the thigh, immediately over the vastus internus muscle, there ensues a slow wavy contraction of the muscular fibres, causing a slow upward and inward movement of the foot. Now this last phenomenon may be elicited in ataxia, even when the tendon-reflex has been completely abolished. As regards the constancy of Westphal's symptom (as the absence of the patellar tendon-reflex has been sometimes called), authors differ. Some have found it present in every case, others have noted its occasional absence. So far as my experience goes, in none of my cases could the most careful examination show the presence of the tendon-reflex at the knee.

The inco-ordination in gait, from which the disease derived its name, is a characteristic but not a constant feature of the disorder. The patient manifests certain irregularities in movement which are notably aggravated when the eyes are closed. If asked to stand with his eyes closed and with his heels and toes approximated (in which position the base of support is lessened) his body sways to and fro, or if the disease be at all advanced, standing may be impossible. As the disease progresses the patient finds himself unable to stand without support even when the eyes are open. Now his position when attempting to maintain the erect posture, is characteristic. All the extensor muscles are in a condition of tonic contraction. The contraction of the calf muscles causes an extension of the foot on the leg. The leg is rigidly extended on the thigh from contraction of the quadriceps extensor. This attitude of the lower extremities produces a tendency on the part of the patient to fall backwards, which, however, is counteracted by what is apparently a voluntary contraction of the mus-

cles which flex the trunk on the thigh. The body is then bent forward. Any tendency to fall in this direction is obviated by the support which the patient derives from his cane. In this position, the buttocks project prominently backwards, and a vertical line let fall from the great trochanter, falls considerably behind the heel. In the early stages of the disease, the only irregularity in the gait noticeable is a certain amount of unsteadiness when rising from a recumbent or sitting posture, at first manifested at twilight and at a later period at all times. As the disease progresses, the patient keeps his eyes on his feet, in order to aid his step. Owing to the strong contraction of the extensor muscles of the lower limbs, which has just been described, the patient in walking has to move the leg forward as one solid piece, with no flexion at the knee-joint. This movement is accomplished by the conte action of the muscles which flex the thigh on the trunk. At the same time, there is a contraction of the abductor muscles of the thigh. The movement of the limb in locomotion then is a forward and outward one. In beginning the step, the foot is brought into a position of dorsal flexion, and this position it maintains until it touches the floor again, which it does heel first, the sole of the foot following with a sort of thump. All the movements made during locomotion are of a jerky character. Sometimes in making a step the patient lifts the foot much higher than is necessary, not being able to judge distances correctly. As the disease progresses, walking and standing become more and more difficult, until at last they are impossible. The disease may involve the upper portion of the cord, when the muscles of the trunk may become affected, so that the patient can no longer maintain an erect posture when sitting. When the spinal centres for the arms are invaded, ataxia then appears in the upper extremities. At first the patient notices that there is difficulty in reaching for or grasping an object unless the gaze is fixed on it. Or he may notice that certain delicate movements which he had formerly performed with ease, such as those of writing or piano playing, become difficult. If the patient is asked to close his eyes and touch a specified portion of his face with one of his forefingers, he will probably reach the desired point only after repeated trials. He finds difficulty in buttoning his clothes. Finally, even such movements as those

required during the act of feeding become impossible. Notwithstanding the helpless condition of the patient, he is still able to exert quite a fair amount of muscular power.

The ataxic patient generally experiences a marked anæsthesia of the lower extremities, which he describes as a sensation as if the soles of the feet were padded, or as if he were walking in mid-air, or on soft velvet carpets. If the anæsthesia exist to a profound degree, the patient is unable to say in what position his legs are placed when in the dark. The anæsthesia may involve all parts of the extremities and trunk alike, or it may exist only in circumscribed patches, discoverable only after careful examination. It never exists to the high degree sometimes observed in cases of transverse myelitis. The anæsthesia of the lower extremities, although not the cause of the peculiarities of gait in this disease, is, if well marked, sufficient to produce a slight degree of ataxia.

Pain in the back, tenderness along the spine, girdle sensation about the waist, are rarely experienced in locomotor ataxia. When they do occur, they indicate that there is a greater or less degree of involvement of the spinal meninges.

The eye symptoms of ataxia form a very interesting group in its symptomatology. One of the most characteristic of these is the condition known as the "Argyll-Robertson pupil," a condition in which the pupil responds either feebly, or not at all, to the stimulus of light, yet its movements during efforts at accommodation, are perfect or nearly so. This symptom I have met with in four-fifths of my cases of ataxia. In most of the cases it made its appearance early in the course of the disease. How early it may appear it is impossible to say, as it gives rise to but little inconvenience, and so fails to be recognized until other symptoms have set in. It may occur in any of the degenerative diseases of the cord, but is most frequently met with in locomotor ataxia.

Myosis has long been known as a symptom indicative of disease of the spinal cord, and is particularly common in the disease under consideration. It is apt to vary in degree from day to day. At one time the pupils may be pin-hole in size, and at another, apparently normal. When the myosis is marked, the withdrawal of light, or the instillation of strong solutions of atropia produces

but very imperfect dilatation of the pupil. Dilatation of either one or both pupils is sometimes met with. It is not accompanied by any impairment of the power of accommodation, beyond that usually setting in at the middle period of life. According to Charcot, the pupils dilate during the attacks of fulgurant pains. Two years ago I had under my care an ataxic who was subject to darting pains in the frontal region on one or the other side. He also had marked inequality of the pupils, that pupil always being the larger which was on the painful side of the head.

Inequality of the pupils is a frequent symptom. Both pupils may be either contracted or dilated, but to unequal degrees, or one pupil may be contracted and the other dilated.

In health, powerful stimulation of the skin of the temple or neck produces reflex dilatation of the pupil. Stimulation of one side causes dilatation of both pupils. Erb has shown that, along with the loss of response of the pupils to light, there is a loss of this reflex dilatation in response to cutaneous stimulation. The faradic brush is probably the most convenient method of applying stimulation in testing this phenomenon.

The most distressing of the eye-symptoms of ataxia is the atrophy of the optic nerve. This usually occurs in the early stages of the affection, and rapidly progresses to complete blindness. The loss of vision is first noticed in the peripheral portion of the field, and extends itself by entering angles. One-half of the field of vision may be destroyed, while central vision remains normal. Color-blindness usually appears along with the optic atrophy. The perception to green is lost first, then red, and finally yellow and blue. To an ophthalmoscopic examination, the optic discs present a grayish mottled appearance, especially to the direct method, its edges are sharp and well defined, and the sclerotic ring is distinct. The vessels are usually normal in size. As has been remarked before, the optic atrophy may appear very early in the course of ataxia; in fact, cases have been reported in which it appeared eighteen and twenty years before the manifestation of ataxic symptoms. The percentage of cases of ataxia in which atrophy of the optic nerve appears, is a subject which has given rise to considerable discussion. Out of my fourteen cases, one suffered from atrophy of the optic nerve. Gowers' observa-

tions lead him to believe that one in six cases is about the correct proportion.

In locomotor ataxia, careful examination has shown that there is an independent peripheral degeneration in the cutaneous nerves in the anæsthetic regions, and this is exactly the condition observed in the case of the changes in the optic nerve. The intra-ocular changes, then, are symptoms associated with the spinal cord lesion, and not in any sense dependent upon it.

More frequently met with than the atrophy of the optic nerve, are the paralyses of the various external muscles of the eye. These, likewise, appear in the pre-ataxic stage of the disease. The paralysis of the muscles of the eye-ball may be so great as to give rise to strabismus, or it may give rise to diplopia, without any apparent deviation of the eyes, or the diplopia may be only noticeable when the patient is looking in one certain direction. Paralysis of the levator palpebræ superioris is also an occasional symptom. These paralyses, like many other symptoms of ataxia, may be but temporary. They may appear and disappear a dozen times during the progress of the disease.

Other cranial nerves than the second and third pairs have occasionally been reported as affected; but on this subject I can offer no experience of my own, as the only symptoms in this connection observed in my cases, were laryngeal troubes and gastric crises, both of which are indicative of irritation of the pneumogastric nerve.

Mental symptoms are not often observed in locomotor ataxia, but when they do occur, they are generally those met with in general paralysis of the insane. Many cases of the latter disease are associated with all the symptoms of sclerosis of the posterior columns of the cord, which forms in these cases but a part of a general degenerative process. Two of my patients, both of them far advanced in the disease, were suddenly seized with cerebral symptoms. In one case amnesic aphasia without hemiplegia was the condition present. It lasted two days, and then disappeared. In the other case the patient went into a stupor in the course of a couple of hours, during which he could only with difficulty be aroused, and from which he completely recovered at the end of a few days.

Bladder symptoms are frequently met with in ataxia. Hammond considers urinary incontinence to be a frequent accompaniment of the pre-ataxic stage, and that its appearance in a previously healthy adult should always direct attention to the spinal cord. In the fully developed disease the patient frequently passes his urine involuntarily. In some cases he is unable to completely empty his bladder, owing to paralysis of that viscus. The urine then comes away slowly, and is ejected in a very weak stream. That which remains behind in the bladder decomposes, and, by its irritating action, sets up cystitis. Everything is now made favorable for the deposition of the phosphates, which, in some cases, may proceed so far as to form a vesical calculus.

Rectal symptoms are few in number. In the advanced stages there is generally considerable anæsthesia in the anal region, so that, while the patient, in response to calls to defecate, can perform the fact, his sensations do not make him cognizant of having done so. In rare cases there may be involuntary evacution of feces.

In the early stages of ataxia the sexual desire is inordinately increased, and, along with this increase in desire, there is a greatly increased capacity for performing the venereal act. Later, involuntary seminal emissions appear, sexual desire grows weaker and is finally lost, erections are insufficient, and the discharge of semen premature. I have made a few inquiries among my patients regarding their ability to propagate offspring. I found that with but one exception they had had no children for a number of years prior to the appearance of the spinal trouble, and that, too, notwithstanding the fact that neither they nor their wives had practiced means for the prevention of conception. In the exceptional case the man's wife gave birth to a healthy infant at a time when he presented all the well marked symptoms of ataxia.

The gastralgic attacks, or gastric crises, as they are sometimes called, are symptoms of the early stages of ataxia. They consist of paroxysms of pain of a burning or lancinating character, sometimes described by the patient as "pain, as if a red-hot fork was plunged through the flesh into the stomach." They usually make their appearance during an attack of the lightning pains. They are frequently associated with vomiting and retching. In

some cases the vomiting exists without the pain, and may be so severe that the entrance of the smallest quantity of water into the stomach is sufficient to renew it. In some cases the appetite is completely lost, while in others it is so inordinately increased that it is next to impossible to satisfy the morbid craving of the patient. The paroxysms of gastric pain usually last three or four days, and recur at intervals of a month or more. During their continuance there may be marked irregularity of the heart's action. Their presence is usually attributed to irritation of the nuclei of the pneumogastric nerves by sclerosis of the adjacent nerve tissues. They may constitute the only symptoms in a given case, and may so exist for years without their true nature being understood. Buzzard reports a case in which the gastric crises had existed for years, and were of such frightful severity as to give rise to the diagnosis of cancer of the stomach.

Other visceral neuralgias may appear in ataxia, as, for instance, the renal crises, in which paroxysms of pain appear and radiate from the lumbar region to the epigastrium, and sometimes to the more deeply situated parts of the abdomen. The urine decreases in quantity, until almost complete suppression results. The pains frequently follow the course of the ureters. Similar paroxysms of pain often course along the urethra and rectum.

Laryngeal symptoms often appear in the later stages of ataxia. They vary greatly in severity. They may consist only of a slight spasmodic cough, with repeated expiratory efforts, the result of laryngeal irritation. At other times, attacks similar to those of spasm of the glottis come on. The patient is seized with intense dyspnœa, and becomes cyanosed. These paroxysms occasionally produce death. Usually they last but a few moments, but they may recur many times in a day. Laryngoscopic examination generally yields negative results.

The joint lesions of ataxia constitute remarkable phenomena of the disease. They usually appear in the early stages, and occasionally may constitute the only symptom of the case. When they do manifest themselves late in the course of ataxia they generally appear in the upper extremities, just about at the time when the pathological process is about to extend itself to that portion of the spinal cord from which these members derive their

nerve supply. They are usually cotemporary with the lightning pains. The knee-joint is the one most frequently affected, and then in decreasing order of frequency, the shoulder, elbow, hip and wrist joints. The joint affection of ataxia consists of a hydrarthrosis of the affected joint, in association with a diffused swelling of the surrounding tissues. It presents, in its external appearances, important points which distinguish it from ordinary synovitis. When, in the latter affection, the joint contains a large quantity of fluid, there are three points at which there is a marked projection of the distended joint capsule, namely, above the patella and on each side of its ligament. This appearance in the joint disease of ataxia would be present but for the changes in the tissues surrounding the joint. These changes consist of an effusion beneath the periarticular muscular tissues. We know that the effusion is sub-muscular, because none of the ordinary signs of subcutaneous œdema are present, and they respond normally to electrical stimuli, which would not be the case were they separated from the surface of the body by fluid. Tabetic arthropathy is unaccompanied by pain. It may disappear completely in the course of a few months, leaving the functions of the joint unimpaired, or the pathological process may extend to the osseous structures. The erosion of the cartilages and bones may continue until the articular surfaces are continually destroyed. Charcot has pointed out the similarity between this disease and arthritis deformans. A little care, however, will prevent any error of diagnosis. Tabetic joint lesions are accompanied by a much greater intra-articular effusion than is found in arthritis deformans, and the pathological changes also extend to tissues beyond the joint; and when the alterations in the bone are at all extensive there is marked tendency to dislocation of the joint. When the disease is a simple hydrarthrosis it may retrograde, which never occurs in arthritis deformans. The association of the articular lesions with the ordinary symptoms of locomotor ataxia will aid in diagnosis. But it must not be forgotten that this disease and arthritis deformans may co-exist. Buzzard has called attention to the frequent association of gastric crises with joint disease. In fact, so frequently are they associated that he regards their co-existence as more than co-incident. He is thus led to

suggest that inasmuch as the gastric crises are due to a patch of sclerosis at or near the nuclei of the pneumogastric nerves, there may be in the medulla a trophic bone centre, alterations in which produce these articular changes.

The shafts of the bones, as well as the articular surfaces, may undergo pathological changes, so that they become brittle, and are liable to fracture from very slight causes, such, for example, as the muscular action required in turning over in bed. Regnard's investigations show that these alterations depend upon fatty changes in the bones, the earthy salts at the same time disappearing. Vallin, Luys and Lereboullet have observed, in a few cases, rarefaction in the alveolar border of the maxillary bones, as a result of which there is falling out of the teeth. Changes in the teeth themselves were met with by David. The anterior portion of the crowns were decayed, the altered parts becoming soft and of a reddish color. The tooth pulp had produced a layer of secondary dentine, and in many of the front teeth the pulp cavity was obliterated.

Pitres has observed two cases of ataxia in which there was a spontaneous falling off of the nails of the great toe, unattended by pain or suppuration, and with no history of traumatic cause preceding. The old nails were rapidly replaced by new ones.

Ball and Thiebierge, at the recent meeting of the International Medical Congress, referred to an occasional trophical symptom of ataxia, namely, perforating ulcer of the foot. These ulcers are liable to develop symmetrically. They usually appear early, and during the stage of lightning pains. Frequently, after the ulcer has healed, as a result of treatment, it shows a tendency to recur as soon as the patient begins to walk again. Treves regards these perforating ulcers in pretty much the same light as he would a bed-sore occurring during the course of disease of the spinal cord. His experience leads him to believe that the ulcer in question commences as a suppuration beneath a corn. On account of the thickness of the skin, the pus, in order to gain an outlet, must work its way upward, and discharge on the dorsum of the foot. He has not observed the anæsthesia or the local sweatings referred to by Savory and Butlin. He then regards the ulcer as a purely local affection, and not as a trophical phenomenon of disease of the spinal cord.

Cutaneous lesions are occasionally met with. These, as shown by Charcot, may consist of papular, herpetic or pustular eruptions. They generally appear immediately after an attack of the lightning pains, and usually follow the course of the affected nerve. Strauss has observed a peculiar form of disease affecting the skin of ataxic patients. It consists in the appearance of spots of ecchymoses after the paroxysm of pains. They are irregular in shape and vary greatly in size. They are not painful. They do not follow the course of any nerve.

Diagnosis.—The early diagnosis of ataxia is a very important matter, and yet a very easy one, if the fact that the disease is more than a simple sclerosis of the posterior columns of the cord, is borne in mind. Pierret has shown that there are marked changes of a degenerative character in the peripheral nervous system throughout the body. We observe them in the case of the cutaneous nerves in those regions where anæsthesia is marked, in atrophy of the optic nerve where amaurosis is present, in the oculo-motor nerve, in case of paralytic symptoms about the eye; in fact, there is not a nerve of the body which may not be subject to these degenerative changes. We are thus enabled to see that the disease under consideration may present great variations in its symptomatology, and so offer difficulties in its diagnosis to one unacquainted with the fact that in locomotor ataxia there are both central and peripheral changes.

As was said in speaking of the symptomatology of the disease, the lightning pains, the pupillary changes and the absence of the patellar tendon-reflex, are the first symptoms to be manifested. The latter two never cause the patient any discomfort, hence the physician rarely has his attention directed to them. It is different, however, with the lightning pains. These cause the patient great suffering. They appear very early. One of my patients had suffered from them for twelve years before the onset of the incoordination of gait. They are liable to be confounded with rheumatism or neuralgia. The former condition they resemble in their aggravation during damp weather. In other points, the two conditions are widely different. When the mode of onset, the effect of pressure, and the duration of the pains in the two cases, are considered, there will be but little chance for making an

incorrect diagnosis. More difficulty will be experienced in distinguishing these pains from those of neuralgia. Neuralgic pains, as is well-known, follow the course of some recognized nerve trunk, whereas the pains of ataxia affect no definite locality. There is scarcely a part of the body they do not at one time or another invade; now here and now there, coming suddenly, lasting for but a moment, and then disappearing as quickly as they came.

The ocular changes are of value in the early stages of ataxia. While of importance in making an early diagnosis, they are not pathognomonic of the disease; but when they are associated with absence of the patellar tendon-reflex, although there be no ataxia, and no lightning pains, the existence of the incipient stages of tabes dorsalis cannot be questioned.

The absence of the patellar tendon-reflex, inasmuch as it is occasionally met with in healthy individuals, and frequently in other nervous diseases than ataxia, is not, when unaccompanied by other symptoms, of much diagnostic value. It is a symptom of inestimable worth when it is associated with any one of such characteristic symptoms as the lightning pains, the pupillary and ocular changes, the gastric crises, and the joint lesions.

The errors in diagnosis respecting ataxia most frequently made are those in which the joint lesions constitute an early symptom. Such cases generally consult the surgeon, who looks upon the disease as a purely local one; and notwithstanding the anomalous character of the articular affection, more than one patient has been made ready to undergo a resection of the affected joint ere a timely discovery of the true character of the joint disease was recognized.

The value of the ataxic gait with its well-known aggravation when closing the eyes, has been over-estimated. True, it is present sooner or later in the vast majority of cases, but then there are so many cases in which it appears so late, that were the disease to depend on it for recognition, the diagnosis could only be made at a time when all hope of successful treatment must be abandoned. Its value is still further lessened by its occasional presence in other diseases, as multiple sclerosis of the cord and chronic transverse myelitis.

This last named affection is generally associated with marked

anæsthesia, and on this symptom the instability of gait when the eyes are closed depends. As is well-known, freezing of the soles of the feet to such a profound degree as to produce anæsthesia, may produce a temporary ataxia. Chronic transverse myelitis presents, also, various motor and sensory paralyses of the extremities, and of the bowels and bladder. It is unaccompanied by the lightning pains, at least in the early stages, and the patellar tendon-reflex is usually preserved.

Disseminated sclerosis of the spinal cord, when the brunt of the disease is borne by the posterior columns, may present symptoms which render an accurate diagnosis well nigh impossible. The ataxia, the lightning pains, the optic atrophy, and the pupillary symptoms may be present. Other symptoms indicative of affection of the antero-lateral columns and the anterior cornua, will frequently be manifested. When the sclerosed nodules appear in the brain, there will be tremor on voluntary movement, vertigo, headache, mental disturbances, and epileptiform attacks. As a rule the tendon-reflex is present or it may be exaggerated and associated with ankle clonus.

Disease of the cerebellum may be confounded with locomotor ataxia on account of the inco-ordination of gait sometimes present in the former. The gait, however, is more of a staggering nature, like that of a drunken man. The tendency is to fall backwards. The instability during progression is usually increased by vertigo, hence the patient is able to walk better with his eyes closed than with them open. The inco-ordination of movement is not present when the patient is lying down. There is usually pain in the occipital region with vomiting. The cutaneous sensibility, the knee phenomenon, and the bladder and rectal reflexes are unimpaired. The lancinating pains, so characteristic of locomotor ataxia are absent. General convulsions may be present, and may or may not be attended with choked disc or optic neuritis.

Hysterical ataxia may be confounded with the organic form of the disease. Here the course of the disease, together with the temperament of the patient, may assist in the diagnosis. The reflexes will be presented or even exaggerated. Symptoms indicative of degeneration of the peripheral nerves are absent. In hysterical ataxia the disordered gait is due to an impairment of the

muscular sense, hence so long as the patient watches her movements, her progress is good. In locomotor ataxia the ataxia is only ameliorated by the aid of vision, and not entirely relieved, as in the case of hysteria. Hysteria may occasionally be associated with true locomotor ataxia, in which case there may at first be some difficulty in making a diagnosis.

Prognosis.—The natural course of locomotor ataxia is such as to make it an exceedingly difficult matter to lay down any definite rules concerning the prognosis of the affection. The disease is characterized by its remarkable remissions of symptoms and frequent relapses, so that it is impossible to say when we have cured our patient; for no matter how comfortable he may be for the present, we know not at what moment the disease will reassert itself in all its fury. One thing is certain, and that is that locomotor ataxia is a very serious disease, one in which a favorable result can only occasionally be obtained. Cures have been reported. Whether in these cases the pathological condition was removed or the symptoms simply held in abeyance, an autopsy only will decide. Erb once reported a case of locomotor ataxia as cured. The patient remained free from symptoms for twelve years, when he died suddenly, the result of corrosive poisoning. A post-mortem examination made by Schultze revealed the fact that the posterior columns of the cord were extensively diseased, and that after all a cure had not been obtained. A frequent course taken by the disease, is for it to progress rapidly for a length of time and then remain stationary. Other cases go rapidly downward, not even being attended by the remissions, which appear occasionally, to give hope to the sufferer. As regards individual symptoms, no prognosis can with certainty be given, except in a few instances. The atrophy of the optic nerve destroys vision certainly and hopelessly. The diplopia and the paralyses of the ocular muscles offer a favorable prognosis. The lightning pains disappear sooner or later, but may reassert themselves at any moment.

Treatment.—The treatment of locomotor ataxia is to a certain extent unsatisfactory. Unsatisfactory because our efforts, persevering though they be, are so rarely attended with the desirable degree of success. Yet in the majority of cases I think it is possible to do our patients some good, either in the way of relieving

individual symptoms or staying the disease in its outward progress. In stating our treatment we may consider it under four heads: 1. Hygienic. 2. Electrical. 3. Medicinal. 4. Surgical.

Hygienic.—A very important element in the treatment of ataxia is rest; not rest from the ordinary occupations of the day, but absolute rest in bed. Weir Mitchell has reported several cases of ataxia, in which the patients from slight causes, fractured bones of the lower extremities. The rest in bed which these injuries enforced was followed by marked alleviation of the symptoms, especially of the lightning pains. Few patients who will submit to such a radical measure as prolonged and absolute rest will be found, so that we will in most instances have to be satisfied with half-way measures so far as this point in treatment is concerned. Hammond, who seems to have lost faith in nearly all the means hitherto recommended, has observed some advantage "in keeping the patient as much as possible from using the groups of muscles which have lost their co-ordinating power, and requiring him, when he walks, to employ crutches to assist him." The partial rest thus obtained prevents waste of the nervous force of the patient and overtaxing of the spinal cord.

Hydropathic treatment (in which I have had no experience) is recommended by Rosenthal and Ross. The former of these authorities lays down the rule, that in the application of hydro-therapeutics to this disease, all measures which tend to increase the congestion and irritation already present, should be carefully avoided. Friction with a cloth dipped in water at a temperature of 60° or 65° will be found beneficial. The patient may be placed in a bath of 70° or 75°, the temperature of which shall be gradually lowered by the addition of cold water, until it reaches 60° or 65°.

2. Electrical Treatment.—Electricity is one of our most valuable agents in the treatment of ataxia. The results obtained from its employment are in many cases tolerable, yet they are not all that we could hope for. Both galvanism and faradism are used. Which is the most beneficial I am unable to say, as it has been customary with me in practice to use a combination of both. When galvanism is applied to the spine both electrodes should be placed on the vertebral column, one in the cervical region, and the other in the lumbar. Either ascending or descending cur-

rents may be employed. One of the electrodes remains fixed, while the other is applied in turn over each part of the spinal cord. Care should be taken not to use too strong currents; eight or ten cells will generally be found sufficient. The sittings should be of from three to five minutes' duration, and if possible should be repeated daily. The above is the method which I have usually employed. Erb recommends a method of galvanization of the spinal cord, from which he has obtained good results. In this method of application he proposes to influence at the same time the cervical sympathetic. The negative electrode is placed over the upper cervical ganglion of one side, the positive "upon the opposite side of the vertebral column immediately adjacent to the spinous processes, at first stabile upon the lower cervical and upper dorsal vertebræ, then gradually moving downward and remaining a little while at each place; this method is then repeated upon the other side, one to one and one-half minute sufficing for each side." He then applies the negative pole upon the spinal column, successively changing its position to lower and lower down, while the positive electrode is held over the lumbar vertebræ. Peripheral galvanization may be called for in some cases, as for example, those in which the lightning pains are present. Then the positive electrode may be placed over the spinal cord at that point from which the affected nerves are given off, while the negative is applied over the painful area.

Faradism, in the form of the faradic brush, has been highly praised by Rumpf. He applies the brush over the integument of the back and extremities. The sittings are repeated daily, and are of about ten minutes duration. The faradic brush will be found especially of use in those cases in which the anæsthesia is marked.

Various symptoms arising in the course of ataxia, such, for example, as the paralysis of certain groups of muscles, will call for electrical treatment, which will differ in no manner from that employed in those cases where the symptoms have occurred in connection with other pathological conditions.

3. Medical Treatment.—It is a noteworthy fact that the prominent remedies employed by homœopaths in the treatment of ataxia are the identical ones in which the allopaths place the highest degree of confidence. In enumerating the remedies for

this disease, with their indications, it will not be possible for me to refer to all which may be of use, nor will it be convenient to mention all the symptoms which may be indicative of a particular remedy, so varied are the symptoms of the disease with which we have to deal.

Argentum nitricum was early recognized by homœopaths as an invaluable remedy in the treatment of ataxia. This fact, however, did not deter Wunderlich from rediscovering the beneficent influence exerted by this drug on the disease under consideration. The silver salts all act powerfully on the nervous system, producing in chronic poisoning cases marked degeneration of nerve tissue throughout the body. Referring to the pathogenesis of argentum nitricum, we find it to contain all the prominent symptoms of locomotor ataxia. The ataxic gait, with aggravation when the eyes are closed, the atrophy of the optic nerve, the contracted, dilated, or unequal pupils, the loss of the pupillary reflexes, the gastralgic attacks, the retention of urine from paralysis of the bladder, the complete loss of all sexual desire, the priapism, the pains in the back and the pains shooting through the extremities, are symptoms which serve to show how thorough is the homœopathic relation of argentum nitricum to locomotor ataxia. We must not expect the improvement which follows the exhibition of this drug to set in immediately after its administration. Nor should we, when we have once prescribed the nitrate of silver, change to another remedy until we are thoroughly satisfied that it will do no more good, or that some other drug is better indicated. It has been my experience to find this drug exerting a more favorable influence on some symptoms than on others. The ataxic gait has generally been the first symptom to be relieved. The lightning pains, on the other hand, are but slightly ameliorated. As regards that most distressing symptom, blindness from atrophy of the optic nerve, while no remedy is apparently of much benefit, nitrate of silver probably does more to slow its onward course than any other drug at our disposal. The old school physicians prescribe nitrate of silver, in pill form, in doses ranging from one-tenth to one-half a grain, three times daily.

The *phosphide of silver* has been recommended by Dr. Allen McLane Hamilton, of New York. He prescribes it in doses of

one-tenth of a grain, repeated three times a day. While no one else seems as yet to have employed this salt of silver, it is certainly a drug which, composed as it is of two such valuable medicines as silver and phosphorus, we might expect to be beneficial in locomotor ataxia.

Zinc and its preparations are important remedies in all affections of the spinal cord, and they are scarcely less useful than the silver salts in locomotor ataxia. That zincum is homœopathic to this disease, will not be questioned even by members of the allopathic fraternity. A few years ago, a series of cases of nervous disease attacking the workmen in the zinc mines of Upper Silesia, was reported by Schlochow. The disease attacked those only who had worked in the mines for a dozen years or more. There was marked inco-ordination of gait and anæsthesia of the lower extremities. It was only by careful observation that the reporter was enabled to eliminate the possibility of the cases being those of idiopathic locomotor ataxia. Zincum is especially indicated when the numbness and formication in the lower extremities are marked; where there is burning along the spine, pain at the last dorsal vertebræ, and other symptoms indicative of spinal irritation. Sexual power is generally lost.

Zinc phosphide is used more by the old school physicians than by ourselves. The combination of phosphorus with zinc, certainly ought to make a very valuable spinal remedy.

Alumina has symptoms which certainly distinguish it as a valuable remedy in ataxia. It has the ptosis and diplopia so frequently met with in the early stages of the affection; the patient is unable to walk in the dark without staggering, the soles of the feet feel as if they were padded, there is formication in the back and extremities, the nates go to sleep when sitting, the heels become numb when walking, and there is pain in the back as if a red-hot iron was thrust into the spine.

Phosphorus, we learn from recent issue of a prominent old school journal, was first used in locomotor ataxia by Dujardin-Beaumetz in 1868. This statement is made, notwithstanding the well-known fact that this use of phosphorus by Homœopaths is of such ancient date that it would be difficult to state who was the first physician to employ it. In its symptomatology phosphorus resembles

zinc, in that it is indicated in those cases in which there is burning, tingling and formication along the spine. But with phosphorus there is marked erethism. Sexual excitement is great. So great, indeed, that the patient uncovers his body without any shame. There will be frequent involuntary seminal emissions. When atrophy of the optic nerve is present it is associated with frequent bright flashes of light before the eyes. Pathologically the condition produced in cases of phosphorus poisoning is one of softening of the nerve tissues, which is not the condition observed in cases of locomotor ataxia. I would suggest that the amorphous phosphorus introduced into our materia medica by Dr. H. N. Martin be given a trial in this disease.

Gelsemium, I can hardly believe, will prove a very valuable remedy in advanced cases of ataxia, no matter how admirably indicated it may be in the early stages. It is probably our best remedy in the incipient cases where there is marked contraction of the pupils not reacting to the stimulus of light, ptosis and diplopia.

Secale is a remedy which has not been mentioned to any extent in homœopathic literature as a remedy for locomotor ataxia. Yet, if the observations of recent allopathic authorities are correct, we have in this remedy one which is eminently homœopathic to the affection. Tuczek recently investigated an epidemic of ergotism occurring in Marburg, in which a number of the patients had marked ataxic gait with absent patellar tendon-reflex, paræsthesia, pains, etc. Four of the patients died, and post-mortem examination revealed sclerosis of the posterior columns of the cord. Cases of ataxia have been reported in which all the symptoms were markedly aggravated shortly after the administration of doses of ergot sufficiently large to produce the physiological effects of the drug. Bartholow cautions the profession regarding the use of this remedy in acute spinal affections. He calls attention to the fact that the veins of the spinal cord are in the numerical proportion to the arteries of four to one. Now, the venous capacity being so much greater than the arterial, it follows that the blood-current in the veins must be slowed in order that these vessels may be filled. Ergot given in physiological doses produces a contraction of the arteries, driving the blood into the veins where it accumulates, distending them unduly. The compression thus exerted on

the cord must have a hurtful influence on its nutrition. Ergot in large doses is highly recommended by some old school authorities as a valuable remedy in locomotor ataxia. Others condemn its employment in this disease, and say that naught but harm can come from its use. What effect the homœopathic attenuations will have I cannot tell, as I know of no experience as to this use of the drug.

Si icea is an important spinal remedy, but it will only occasionally be of use in ataxia, and then for the relief only of certain symptoms which may occur during the course of the disease, as for instance, the constipation.

Picric acid produces both a sclerosis and a softening in the spinal cord. It is indicated in cases in which there is a marked asthenia. The legs feel heavy. There is numbness and tingling in the extremities. Sexual desire is increased, and there are frequent nocturnal emissions.

The lightning pains of ataxia cause the patient great suffering. Yet, so far as I know, we have no remedy which will give the patient any assurance of prompt relief. *Belladonna* being indicated in cases of pain coming on suddenly and disappearing as suddenly as it came, ought to be of benefit. But it has repeatedly disappointed me. *Thallium* has the symptom, pains like shocks of electricity darting through the limbs. Led by this symptom, I prescribed this remedy in one case, but without avail.

In fact, so often have I been disappointed in endeavoring to relieve these pains by the administration of what was apparently the indicated remedy, that I have almost despaired of benefiting them, except by the employment of such agents as are simply palliative. Chloroform applied to the painful area has been recommended by Vulpian, and will sometimes do good. Simple applications of heat relieve in a few cases. Often recourse must be had to morphia. This last named drug must be used only when all other measures fail, and then it must be used with caution, for these patients soon exhibit a remarkable aptitude for taking large doses of it.

Surgical Treatment.—Nerve stretching, as a remedy in ataxia, was proposed by Langenbeck, who first performed the operation on a case of this disease in hopes of relieving the light-

ning pains. Not only were the pains relieved in this case, but the ataxia also. A second operation was performed by Esmarch, who stretched the nerves in the axilla for the relief of pains in the arm. . In this case too, the motor inco-ordination entirely disappeared. The third case was by Eulenmeyer, and was not successful. Since the performance of these operations, nerve stretching has been done in ataxia nearly a hundred times with varying degrees of success. Müller, Benedikt and Charcot all speak highly of the good effects of the operation. How the operation acts is not, by any means, clear. It is certain that its influence extends far beyond the region of the nerve acted upon to the spinal cord. That it is not without its danger, is proven by Westphal's case, which died during the operation. Althaus has pointed out the fact that the mechanical force exerted in stretching the nerve may be transmitted to the medulla, and so occasion sudden death. Two of my patients experienced sudden and complete relief of the ataxic pains after severe attacks of intercurrent illness. In both cases the suffering was frightful. One patient had a severe attack of intermittent fever. After his recovery he suffered no more during the remaining two years that he was under my treatment. The other had an apoplectiform attack which was followed by great relief of the pain. In this latter case, nerve stretching was to have been performed. The day for the operation was appointed, when the sudden aggravation of the man's symptoms necessitated a postponement. On his partial recovery, his symptoms were such as to call for no surgical interference. Do not these two cases warrant me in suggesting the possibility of nerve stretching acting as a sort of shock to the system in pretty much the same manner as would a sharp attack of illness, and in this way relieve the patient? The last case certainly shows that great care should be taken in arriving at conclusions regarding therapeutic means, for had the operation been performed, it would certainly have been credited with the patient's relief from suffering, and for which it could not have been responsible.

ALBUMINURIA.

BY THE ALLEGHENY COUNTY SOCIETY.*

History.—The history of albuminuria forms one of the most interesting chapters in medical literature, affording a strong illustration of the rapid progress made during the present century toward bringing medicine up to the standard of a science.

In the course of the last century various practitioners had observed that persons convalescing from scarlet fever often passed bloody urine and were dropsical. At Vienna, in 1770, Cotugno published his observations, showing that dropsical persons could pass urine which, although not blood-colored, might coagulate just like white of egg on being heated. As Cotugno found a substance which gave the same reaction in the dropsical effusions which filled the different serous sacs of the body, he regarded the excretion of albuminous urine in dropsy as only a spontaneous or natural effort of the healing powers, and assumed that this was nature's method of ridding herself of the difficulty by removing the pathological product through the kidneys. Cotugno's discovery received the consideration it justly deserved, and was corroborated and established principally by the labors of some English physicians. Cruikshank took the presence or absence of albumen in the urine of dropsical subjects as his guiding principle in distinguishing one form of dropsy from another. Wells had already noticed, in his pathological inquiries, certain anatomical alterations in particular kidneys which had secreted albuminous urine during life.

In 1820, Buckall published at Philadelphia, 'Observations on the Nature and Cure of Dropsies,' in which he considered the frequency of kidney disease in dropsical patients who had exhibited albumen in their urine. This author, however, maintained that the changes exhibited in the kidneys were not the cause of the albuminuria, but were themselves common results of one and the same primary affection, namely, a state of general inflammation, and to this he attributed both the passage of albumen from the blood into the urine, and the kidney alterations.

In 1827, Richard Bright, of England, published 'Reports of Medical Cases, selected with a view of illustrating the Symp-

* This paper was prepared by a committee consisting of Drs. W. R. Childs, J. B. McClelland, C. C. Rinehart, W. J. Martin and W. F. Edmundson.

toms and Cure of Diseases by a reference to Morbid Anatomy,' in which he showed that certain alterations in the kidney, which had been for the first time accurately described by him, were associated with the excretion of albuminous urine, and he inferred that this albuminuria might be accepted as the sign of those pathological changes of the kidney, which were, besides, likely to produce general dropsy.

Bright's theory was that the complaint began in some functional disturbances, but by persistence in its functional disorder, the structural changes of the kidneys would surely follow.

The researches and observations of Christison and Gregory confirm Bright's doctrine, although objections to its correctness were not wanting. Graves, Prout, and other writers in Great Britain, asserted that the real cause of albuminuria, and also of the kidney disease, was not the alteration in structure of the organs that secreted the urine, but subsisted in some abnormal composition of the blood, or in some perverse construction of the albuminous elements of the blood-serum.

These different views are not yet reconciled. While many physicians to-day consider the term albuminuria as an equivalent for kidney disease, there are others who consider some, if not all, such cases due to an altered condition of the blood. Stokvis, of Amsterdam, in his work, entitled Experimental Inquiries into the Pathological Conditions which lead to the development of Albuminuria, published in 1867, concludes from his experiments and observations, and states distinctly, that he could not discover any chemical change in the blood to explain the albuminuria, but was forced to attribute this symptom in every case to some disturbance of the circulation, and to an increase of the normal blood pressure in the excretory vessels of the kidneys.

W. J. Martin, M.D.

Etiology.—The etiology of this disease cannot be traced with any positive certainty. Although, as a rule, it sets in as a secondary affection, yet the question may fairly be asked whether it does not sometimes develop as a primary disease.

Albuminuria chiefly befalls persons of middle age, less frequently children, and still less old people.

Males seem more disposed to contract this disease, probably because they use such noxious substances as predispose to it more frequently than women. Feeble individuals are more frequently attacked than vigorous persons. Damp and cold weather frequently cause it, which may account for its prevalence in this country, as well as in England, Holland and the coast of the North Sea; being in a measure caused by the suppression of cutaneous exhalations. It is not every disease of the kidneys that gives rise to albuminuria; but inflammation of the kidneys, especially that form which runs a chronic course, furnishes the largest percentage amount of albumen to the urine.

While cold is certainly a prominent factor in causing nephritis, yet the disease is not found to exist in the frigid zone, and here it is that travelers are exposed to the greatest and most sudden changes of temperature. Extreme cold, though it may stop cutaneous exhalation, probably does not allow the material to accumulate. Cold increases the consumption (activity) of oxygen, and gives rise to increased combustion of the solids and fluids of the body.

By cold the respiratory function is exalted, and the excretion of urea is diminished. With intense cold the introduction of oxygen by the lungs is probably so great, and oxidation in the body so active, that all material susceptible of such action becomes oxidized, as much of it as can be converted into carbonic acid and water passing out with the breath. The kidneys, therefore, are not liable, as in temperate climates, to be irritated by excrementitious matter, for the stress of excretion falls upon the lungs. The immunity from inflammatory affections of the kidneys which warm countries possess may be explained on similar principles; other excreting organs than the kidneys are in a state of increased activity. A failure in the action of the skin would occasion a demand upon the liver and alimentary canal rather than upon the kidneys. An exposure which, in the temperate zone, might cause nephritis, in the torrid zone would be more likely to cause dysentery or hepatitis.

In temperate climates it appears that the kidneys sympathize and alternate with the skin more than do any other organs. If the action of the skin is arrested the kidneys are stimulated or

irritated by the presence in the blood of the material which the skin has failed to remove. It may be that the gland will not pass the limits of healthy activity, and no harm will follow; but under unfavorable circumstances, such, perhaps, as exhaustion or loss of nervous energy, the kidneys will be stimulated beyond their power of response, and a state of nephritis will result. We know enough of the action of the nervous system to throw light upon the fact that exhaustion predisposes to inflammatory action. In childhood scarlatina is by far the most frequent cause of this disorder. A case of scarlatina rarely passes through its course without some trace of albumen in the urine. In scarlatina, as well as in some other febrile diseases, morbid products are left in the blood which the kidneys take a share in removing, and are irritated by the poison, which selects them as a mode of exit. This view derives support from the fact that in other febrile diseases similar results follow, and also from the observation made, that when the throat has suffered severely the kidneys are mostly exempt. The "materies morbi" may exhaust itself upon the throat, or may remain in the system as a source of further mischief.

The kidneys become affected in consequence of the inaction of the skin, which accompanies the shedding of the cuticle; but it appears that the kidneys are much endangered when the skin is little affected. It is, however, an important practical fact, that external cold often acts as the immediate instigator of the renal disturbance. In many cases where no renal symptoms have been noticed, and convalescence has been apparently established, a too early exposure to the weather has set up an attack of dropsy.

Measles, as a cause of albuminuria, is rare; but when it does follow this disease (measles) it pursues the same course as after scarlatina.

Diphtheria, erysipelas, typhus, small-pox, pyæmia, cholera, and pneumonia may sometimes be followed by albuminuria of a mild form, or albuminuria may be produced by the vicarious elimination of bile, and it follows the poisonous use of cantharides, turpentine, arsenic and some other drugs. Alcohol also sets up the disease sometimes in a severe and enduring form.

Granular degeneration of the kidneys is necessarily a chronic disease which has always associated with it albuminuria, and may

arise from gouty habit, lead poisoning, alcohol, cardiac disease, pregnancy, intermittent fever, obstruction to the exit of the urine, prolonged mental disturbance, anxiety or grief, and sometimes will arise from unknown causes.

Lardaceous disease, produced by protracted suppuration or syphilis, is another cause of albuminuria.

The use of alcoholic stimulants, strange as it may seem, has less to do with the production of albuminuria than any of the preceding causes mentioned. In lardaceous kidney there is no ground or any reason to believe that the influence of alcohol is ever directly concerned in its production. Great alcoholic excess may produce acute renal inflammation, but is more likely, as with other organs, to produce chronic changes, with various degrees of congestion and enlargement of the gland.

The fibrotic exaggeration found in granular kidney, is an appreciable result of alcoholic excess. Alcohol attacks other structures in preference to the kidneys.

As causes of albuminuria, atmospheric power overshadows all the other circumstances combined.

W. R. Childs, M.D.

Note.—The following has been compiled *en masse* from Dickinson's work on Albuminuria:

Pathology.—For all practical purposes, the kidney may be divided into three parts. First, a complication of tubes, which with the malpighian bodies in connection with them, are the sources of its secretion, and are the essential elements of the gland. Secondly, these structures are bound together by a delicate web of sparsely nucleated fibrous tissue, which has the appearance of a fine uniform network. This tissue pervades the entire organ, surrounding and supporting every tube and each malpighian body. Thirdly, the gland is abundantly supplied with blood-vessels, which lie with the fibrous tissue between the tubes. Some blood-vessels of the smallest size, enter into the construction of the malpighian bodies, but with this exception the blood-vessels, like the fibrous tissue, are intertubal structures. We have, therefore, a triple constitution of the kidneys, viz., tubes, fibrous tissue, and blood-vessels.

The ordinary appearance of the several renal structures must be taken into consideration.

First, the tubes; out of sixty-eight kidneys which had the appearance of health, and which had belonged to persons having no symptoms of renal disease, only nine had the cavity of the tubes distinct, with the epithelium in place; the remainder were filled, some with cells, some with granular matter, some with fibrinous matter, and again some with oil globules and other contents. So that there is a great variety in the appearance of the tubes and of the epithelium after death, without any disturbance of the function of the kidney during life. But, if the tubes are palpably increased in width, if they contain fibrinous matter to any great degree, or if they are bare of their epithelial lining, then the presence of kidney disease must be inferred.

The fibrous tissue which passes everywhere throughout the gland, supporting, separating, and binding together the tubes, blood-vessels, and malpighian bodies, may be changed in certain forms of disease.

The blood-vessels are also changed but the change is most difficult to determine, by reason of their minute size, the smaller ones being hidden between the tubes.

Thus, if we divide the gland into the three structures which compose its formation, viz., the tubes with their epithelial lining, the fibrous tissue between them, and the blood-vessels with the blood they contain, we have three loci of disease; viz., disease of the tubes, disease of the fibrous tissue, and disease of the blood-vessels. Any of these structures may be primarily the seat of morbid change; and that change may be confined to the portion of the organ in which it began.

The tubes, like the bronchial tubes and all secreting surfaces, are liable under morbid stimuli to an extravagance of cell growth; the disease is an inflammation belonging mostly to the secreting surface. The tubes, particularly those in the cortex, become loaded with epithelium, or with fibrinous matter, which has exuded from the congested vessels. The tubes are distended, and consequently the gland is enlarged, especially in the cortical part, giving us the large smooth kidney of Bright. In such kidneys the intertubal structure may have entirely escaped, but if the inflammation be

severe or long continued, a general multiplication of interstitial nuclei may ensue, which will lead to an abnormal growth of fibrous tissue, and possibly at last to granulation and contraction. The disorder may be termed nephritis, looking at its nature, and as regards its seat, tubal or diffuse. The second form is the contracted granular kidney of Bright, or as it is termed, granular degeneration. Kidneys so affected are usually smaller than natural, sometimes not half their natural size, the shrinkage being chiefly of the cortical substance. However in the earlier stages of the disorder they may be rather increased in size, but the longer the disease lasts the smaller they become. The characteristic of this affection of the kidney is in the alteration of the otherwise smooth surface, which becomes studded with little pale hemispherical granulations. The capsule is thickened, more firmly attached than in health, and the whole organ is firm and of a fibrous texture. These alterations are produced by a slow increase, followed by a slow contraction of the fibrous tissue which lies between the tubes. The change early appears upon the surface of the gland, producing a depression at each starting point. It is these depressions which produce the little hemispherical eminences, giving the surface of the kidney its granular appearance, characteristic of the disease. The increase of the fibrous tissue gradually progresses throughout the entire organ, causing a condition analagous to cirrhosis of the liver, and is frequently named cirrhosis of the kidney. These disorders, the tubal and intertubal, are essentially and primarily renal; they originate *in* the kidneys, and such other changes as are associated with them, are the *consequences* of these affections of the gland.

The third form of disease, which must be included under the general term, Bright's disease, viz.: the lardaceous kidney, or waxy, or amyloid kidney, differs from the first two in being the *result* of a general change, which simply involves the kidneys in common with other organs. This result is usually brought about by the system being under a long continued drain from suppuration, though other causes, mainly syphilitic, may largely contribute towards it. It is characterized by a glassy material which is poured out of the minute arteries, and spreads itself throughout the whole tissue. The organ at first has a whitish or anæmic look,

it increases in bulk and hardness, and assumes, as the disease progresses, a translucent or waxy aspect. The capsule becomes thickened and adherent. After its increase in size, more or less shrinkage takes place, and the surface then becomes uneven, puckered or undulating.

Having discussed in general terms the three forms of albuminuria, we may now speak more particularly of each.

1st. The morbid anatomy of tubal and diffuse nephritis:

The inflammatory change is at first, and frequently altogether, limited to the tubes, and the product of the inflammation only a modification of their secretion. There is, at first, an excessive growth of epithelium, of which the cells may be nearly natural, or simply swollen, or may, in the later stages of the disease, be fatty. Also, the tubes may present, even from the first, the result of vascular leakage, blood and fibrine. In the early stage there is a great increase of blood in the gland, which may become double its own weight. The surface remains smooth, but there is a remarkable increase of vascularity. The capsule is loose and thin, as in health. On section, the inside presents a red or chocolate color, and drips with blood. The pelvis is injected. The malpighian bodies stand out as red dots. Under the microscope the cortical tubes are seen stuffed with an opaque brown material, consisting of cells of epithelium, blood corpuscles, and granular matter. The malpighian bodies are prominent, and their vessels distended with blood corpuscles. The tubes are everywhere in contact with each other. There is no interstitial effusion, and, excepting the distention of the tubes and blood-vessels, the organ is natural. The disease has a natural tendency to recovery. Should the disease prove fatal at an early stage, it will probably be in a great measure owing to the plugging up of the narrow and tortuous ducts, and consequent impermeability of the gland. Should the disease fail to come to an early end, either by death or recovery, but gradually lapse into a chronic condition, it will be found that a change has been superadded which complicates the simple tubal inflammation, by the extension of a similar process to the intertubal tissue. This crosses the boundary which separates the acute from the chronic condition. In the latter, in serious and confirmed cases, there is great increase of bulk, and

change of color. The weight is often more than doubled. The surface is smooth and glossy, and the capsule is readily removed. The fine net-work of capillaries seen in health has disappeared, and is replaced by red blotches of vessels large enough to be followed by the naked eye. On section, the cortex is paler than the cones, which retain their normal tint. The cortex is increased. The kidney is harder than in health, unless a fatty change has taken place. The tubes as a rule, especially the convoluted, are packed with the products of epithelial growth, though great numbers contain transparent fibrine. These fibrinous plugs contribute largely to the obstruction. They are almost always present in the later stages, and sometimes in a very early stage they are as abundant as if a general croupous inflammation had pervaded the whole epithelial surface, closing every channel as with molten glass. Such is the condition of simple tubal nephritis; but the kidney offers no exception to the general law, that disease to be simple must be recent, and that long continued inflammatory action, or in other words, persistent hyperæmia is apt to give rise to fibroid induration. In this instance, it takes the shape of an uniform hypernucleation of the intertubular tissue, attended at first with a scarcely appreciable increase of bulk, but after a time by a nearly even hypertrophy of the interstitial substance, and an increase in the bulk of the organ beyond what is due to tubal distention. It is impossible to say how soon in the course of the disease the additional change may arise. The presence of the intertubal nucleation, or, in other words, of incipient fibrosis, may be suspected when the inflammatory attack is severe and persistent; but there are no early symptoms or peculiarities of cause or commencement by which the cases to be thus succeeded differ from those which are not. The attack is not to be distinguished from one of uncomplicated tubal inflammation, which, indeed, it probably for a time is. The fibrosis is apparently secondary; its seeds are sown by the inflammation of the glandular elements in which the attack originated.

The vast majority of the fatal cases beginning with glandular inflammation, terminate with the large white kidney, which is smooth, or only sparsely dimpled; but now and then, the disorder having arisen in scarlatina, or with acute symptoms from some

other recognized cause of renal inflammation, will prove so tenacious, and at the same time so tardy, that the end may be postponed for years, and the kidneys found granulated and contracted.

Fatty degeneration of the cells is another change brought about by tubal inflammation. The epithelium frequently becomes loaded with oil, when the tubal nephritis is caused by cold. Indeed, when the inflammation has come on after taking cold, fatty change is the rule; when after scarlatina, it is the exception. If the change be extensive and of some standing, the outside of the kidney still remains smooth to the touch, but is closely sprinkled with little white, sharply defined specks, like bits of bran. They have a broken appearance, and their white color forms a contrast with the yellowish cortex, through the whole of which they are interspersed. This appearance is characteristic of a great amount of fatty change in the accumulated epithelium. The specks are aggregations of fat within the tubes. The change takes place independently of any similar alteration in other organs, simply as the result of a local condition. As in the liver, it by no means indicates a hopeless state of disease. The epithelium, for a time fatty, may recover its natural characters.

From the foregoing, we find the following as the organic changes resultant upon tubal and diffuse nephritis.

First. The blood-dripping, chocolate kidney of acute congestive nephritis, usually purely tubal.

Secondly. The large mottled kidney, with absolutely smooth surface and loose capsule, of chronic, but usually not very protracted nephritis, as yet purely tubal. Of this the epithelium may be fatty or not, according to circumstances.

Thirdly. The large white mottled kidney still smooth or barely dimpled, of nephritis mainly or primarily tubal, but complicated with interstitial nucleation or incipient fibrosis This is not to be distinguished save by the microscope from the preceding, of which it may constitute either a later stage or a more severe form. As it advances superficial retractions declare its character to the naked eye.

Fourthly. The contracted or granulating kidney, not often originating in this manner, but to be recognized as a rare and late result of nephritis, primarily tubal.

This brings us now to the second form, viz., granular degeneration, of which I will give the morbid anatomy in as few words as possible.

The first change that we can recognize as a result of the disease is unevenness of surface. The capsule is perhaps more adherent and thicker than natural. The color of the organ is not much altered. On section such a kidney could hardly be distinguished from one in health; the cortex may be redder than normal, and coarse in grain, and one or more small cysts may be detected in it. The kidney is not much altered in bulk, and its texture may be harder than natural. But, in the advanced stage changes are more easily detected. The granular aspect of the surface then becomes characteristic. The kidneys are usually reduced in size, sometimes so much so that a kidney which should weigh five or six ounces, may weigh only two or three. The longer the disease lasts the smaller the kidneys become. In some cases, however, the organ has its natural weight, or is even rather increased. Sometimes the disease has progressed faster in one kidney than the other, causing an inequality in size. The shape has lost its regularity in consequence of the shrinking having taken place unevenly; often the central part has fallen in more than the ends. The capsule is generally thickened, opaque and adherent, though it will generally come off without tearing up the substance. The surface exposed is studded with prominent hemispherical granulations, about one-sixteenth of an inch in diameter, though they may be larger or smaller, and are of a light color; the depressed spaces between are tinted with vascularity, so that they have a purplish or faint red color. Cysts are often conspicuous on the surface. On section, the cortical part, especially near the surface, appears to have undergone the most alteration. Frequently the part between the cones and the capsule, is not thicker than one-sixteenth of an inch. The natural brown color has been changed to yellowish gray or buff, which often appears closely mingled with a red tint. The grain is closer and firmer than in the natural state. Cysts are often found in both cones and cortex. The cones are less affected than any other part of the organ; when altered they assume a color approaching that of the cortex. The superabundant fibroid tissue is usually to be seen around the malpighian

bodies and the blood-vessels. The most conspicuous alterations are immediately under the capsule, which itself is thickened and adherent. At the points of superficial depression, streamlets of fibroid tissue pass into the organ, and as the new growth is formed, contracts and in contracting not only encloses and compresses such parts of the gland as are in its path, but draws the surface at its point of origin. This taking place at regular intervals results in alternate elevations and depressions, or in other words, in granulation. Though the fibroid tissue imbeds the malpighian bodies they retain their size, but the tubes became compressed to mere microscopic threads. As the nuclear matter extends inward, it becomes diffused and spreads over and between all the tubes in its vicinity. The new fibrous growth, which is the essence of the disease, is sometimes seen in isolated patches to some extent in the deeper parts of the cortex. Some portions of the cortical tubes have been so reduced that no passage remains, while in other places they are irregularly dilated. Some are packed with their epithelial growth; others are occupied by a transparent fibrinous material, which has taken the place of the epithelial lining. What has been said of the convoluted tubes will also apply to the tubes which form the cones. They are filled with fibrinous matter, with dark granular plugs, and cortical epithelium. In the more advanced stages of the disease, the granular kidney almost always contains cysts. They are found both in the cortex and in the cones. They are produced by the transformation of the tubes. This is caused by an intertubal development of contractile tissue. By this means the tubes are narrowed, and are even completely obstructed by the external pressure; within the parts so cut off, fluid accumulates until cysts are produced, and are most numerous where the atrophy of the tubes is the greatest. It might naturally be inferred that the blood-vessels would also be implicated in this contractile tissue, and the circulation correspondingly interfered with. Together with the renal disturbance, other organs and structures become involved as the disease progresses, notably the heart and arteries. The cerebral extravasation, the epistaxis, the retinitis, are but the results of this granular degeneration.

Having reviewed two forms of disease, which originate in the kidney itself, we will now proceed to consider the pathological

changes in the kidney affected by lardaceous disease; the amyloid or waxy kidney of many writers.

This affection is not in any sense local. It has its origin in changes which pervade the whole frame and produce tangible alterations wherever arteries penetrate. Many organs are affected at the same time, or in quick succession, and the kidneys are not exempt from the general influence. The primary change is almost certainly in the composition of the blood, the next, a morbid deposit which appears in the walls of the small arteries, and afterwards in the surrounding tissues. The change may affect the liver, spleen, kidneys, supra-renal capsules or lymphatic glands; the entire mucous lining of the alimentary canal; the membranes of the brain and cord, or almost any part of the body to which blood-vessels go, or which even without vessels, is under the influence of the circulation. The change as it affects the solid parts, consists in the infiltration of the tissue by a new material which can be detected by the action of iodine. This agent gives the normal tissue a yellow color, the morbid a deep reddish brown. The kidneys seem to be earliest affected by the disease. Examined at the earliest date at which the change can be recognized, the kidney is slightly pale and anæmic. The organ would pass for natural, but that the iodine solution dots the malpighian bodies. The lardaceous exudation starting as it does from the blood-vessels belongs, excepting when it originates within the malpighian body, to the intertubal district, and is early accompanied with changes in the interstitial tissue, such as a low degree of inflammatory irritation might produce; as if the lardaceous matter had something of an irritating property. The early interstitial hypertrophy is succeeded by a contractile process, as with the granular kidney, and soon evidence of contraction appears in superficial depressions. The surface may present various forms of unevenness. In most advanced cases, where there is much loss of bulk, the organ has obviously shrunk out of shape; it has lost more in width and thickness than in length. When the capsule is removed, which is not done without difficulty, the surface has a sandy texture. The regular covering of uniform small granulations, such as follows from granular degeneration, seldom if ever occurs as a consequence of the lardaceous change. On section the cortex is seen dimin-

ished, particularly its superficial parts, bringing the cones very close to the capsule. Whether shrunk or not, little shining dots can be seen with the unassisted eye, here and there throughout the cortex, like specks of glass. These dots are the enlarged and altered malpighian bodies. Cysts are also common to this disease. They, however, as a rule, are of very minute size.

Making now a microscopic examination of the kidney, we find

First, An alteration in the walls of the blood-vessels;

Secondly, An effusion through them into the tissue and cavities of the gland; and,

Thirdly, Consequent changes both in the interstitial tissue and in the tubes.

In tracing the mechanism of these successive changes the blood-vessels must be first considered. These are affected while yet every other part of the organ is natural, and before there is any symptom of renal disease. The first change is observed in the knot which forms the malpighian body, which becomes somewhat enlarged and displays the characteristic colors with iodine and indigo. The enlargement is due to a thickening of the vessel, which gives a nodular outline to the tuft. The size of the tuft increases as the disease progresses, while the capacity of the vessel is diminished. After the malpighian body has become altered, as described, the same change proceeds to the vessels which enter and leave the capsule. These changes in the blood-vessels are commonly succeeded by others in the interstitial tissue, which, if the disease be of any standing, is apt to become pervaded by superabundant nuclei, to the ultimate formation of fibroid tissue. The new fibroid tissue may arise either from a transformation of the exuded lardaceous matter, or as a result of the irritation which it produces. Considering, however, that the growth does not react with iodine or differ in any respect from the product of simple inflammation, it may with more probability be referred to the latter cause. The exudation of lardaceous matter into the substance of the kidney is rather a matter of inference than observation; all that is to be seen interstitially is vascular alteration and fibrotic change. But the escape of fibrinous and occasionally distinctly lardaceous matter into the tubes from the exposed vessels of the malpighian tuft is easy of recognition, since the material appears

in the tubes and in the urine in the shape of casts. The epithelial cells hold to the wall of the tubes with more than proper constancy, as if the fibrinous exudation, which transudes from the basement membrane, glued them to the wall of the tube and to each other. This causes the tube to remain fixedly open, even after death. Cysts also arise, whether the kidneys be granular or waxy, from the constricting action of the new growth. Fatty degeneration is also commonly associated with lardaceous change. The peculiar alteration of the smaller arteries, lying next to the change in the blood at the root of the disease, affords a simple explanation of the subsequent changes. These little vessels are so modified as to become penetrable in a morbid degree to the liquid part of the blood which they contain. They retain the corpuscles, but the liquor sanguinis, holding albumen and fibrine in solution, passes through them, both into the interstices of the gland and from the free malpighian vessels into the tubes. The fibrine forms the casts which, together with the albumen, appear in the urine. Thus it is seen that the deterioration of the blood-vessels, which is the first tissue change, though it thickens the walls, makes them leaky. As a consequence, an unnatural outpouring from the malpighian vessels and an increase of urine, which at the same time is mixed with serum. The tubes remain freely open, and for a long time nothing hinders the passage of serous or aqueous fluid from the malpighian bodies. Partly from the plugging by the casts, which are formed by the fibrinous part of the exudation, and partly in consequence of a certain amount of tubal inflammation, which is apt to come on toward the end of the disease, the tubes become obstructed and the hitherto copious urine becomes scanty, exemplifying a rule which holds good with every form of renal disease, that the diminution of the urine is in direct proportion to the obstruction in the tubes.

J. B. McClelland, M.D.

Diagnosis and Prognosis.—Nephritis.—*Diagnosis.*—The onset of the disease may be sudden or gradual, and the leading clinical features in addition to the albumen, which is present in all forms of this disease, are diminution in the quantity of the urine and the presence of dropsy. Sometimes it is the diminution in the quantity or alteration in the character of the urine that attracts attention,

sometimes the dropsy and at other times the gastric derangement and general uneasiness; but, be it which it may of these symptoms, the others speedily follow.

The urine is diminished in quantity, often somewhat opaque and smoky, and even bloody; it contains much albumen and numerous casts; the casts are granular, being composed mostly of epithelium in a state of cloudy swelling, sometimes bloody, frequently hyaline and fibrinous.

The urea is diminished and the specific gravity reduced in consequence thereof, though in the first stages of the disease, it may rise to 1051, but later may sink to as low as 1006. Its reaction is acid.

The patient may complain of aching pains in the lumbar region, but a more constant symptom is tenderness in the region of the kidney upon making firm pressure.

The œdema commences first in the face or lumbar region of the back; swelling of the eyelids is well marked in the morning; toward evening, if the patient be up, the limbs are chiefly affected; the scrotum and penis are often swollen, and later an effusion fills the serous cavities of the trunk, and in rare cases we may have œdema of the glottis.

There is but little quickening of the pulse or elevation of temperature, but a great deal of general uneasiness and profound debility, with total loss of appetite.

We may now have a very serious condition set in, namely, suppression of the urine, followed by coma, or convulsions resulting in death; or the dropsy may increase so rapidly as to result fatally; or, again, without or even with the most unfavorable symptoms, under the appropriate treatment, the kidney begins to act more freely, and the urine increases in quantity and improves in character, with consequent gradual disappearance of the dropsy, and restoration to health; or perhaps the general condition improves, and the case passes over into chronic nephritis, which we will now consider.

Chronic Nephritis.—Where the case is one that does not originate from the acute form of the disease, that is, one occurring in persons who have been previously healthy, often the first intimation of disease is the appearance of œdema. There may not

have been present even a pain or ache; they are very weak, and complain of the great loss of strength without, to them, any apparent cause. They are pale and anæmic. In cases from the acute form the dropsy may continue and may even gradually increase, or it may pass off and only appear when the patient is fatigued or contracts a cold, but in cases occurring in previously healthy persons, the œdema first appears in the face and feet, and gradually spreads over the whole body. The urine becomes dark and scanty, and the œdema increases in the ratio as the urine decreases in quantity and as the tubes become more obstructed.

The peritoneum is first of all the serous sacs invaded, then the pleuræ, and lastly the pericardium.

In this disease there is a greater development of general anasarca than in any other disease of the kidney; even the larynx may be invaded, but this is rare. Vomiting is often present, and may develop in any stage of the disease, and is more often present than diarrhœa, though we may have both diarrhœa and vomiting owing to the intestinal tract being involved in the general anasarca. The diarrhœa may result in dysentery and ulceration of the bowels.

The head symptoms, which occur in the less acute form, are of the convulsive variety, while in the acute or more rapid forms they partake more of the nature of coma. The epileptic seizures sometimes come on without any premonitory signs, or they may be preceded by pain in the head, drowsiness, or some peculiarity in the actions and manner of the patient.

These convulsive attacks may be frequent, and then pass off without other mischief, or the patient may remain in an incomplete coma, which is a bad omen, it generally resulting fatally.

Difficulties in the respiratory tract only appear after the invasion of the serous cavities or pulmonary œdema.

Dickinson says the chemical changes in the urine in nephritis may be thus summed up: All the constituents are diminished; the water, the urea, and the chlorides are lessened to a greater extent than occurs in any other renal disease; phosphoric, sulphuric and uric acids are reduced in a less marked manner; the phosphoric acid suffering most, the uric acid apparently least; during convalescence the constituents which have been deficient, viz.: water, urea, chlorides, and sometimes the uric acid, are increased beyond the normal amount.

Albumen is invariably present, and in a larger quantity than in any other renal disease; blood crystalloids are occasionally present and sometimes are detected before the albumen.

Prognosis.—This will depend upon the cause of the disease; in acute nephritis, that following scarlet fever is considered the most unfavorable, also that produced by cold; that from or following measles, diphtheria, or small-pox, runs a mild course, and the patients speedily recover. That dependent upon some suppurative process, where they run a quick course, generally result favorably, but when they run a long course the results are less favorable.

In all cases of acute nephritis it is the rule that recovery or death sets in within a relatively short time, and the prognosis may always be set down as absolutely bad in all cases in which the suppression of urine is complete.

Granular Degeneration.—*Diagnosis.*—The onset of this affection is extremely insidious, and it may exist for a long time without distinctly manifesting itself by symptoms.

Its existence is often only discovered when dyspepsia, uræmic convulsions, or blindness from retinitis leads the patient to consult a physician.

The earliest symptoms are occasional slight appearance of albumen in the urine, and frequent calls to micturition during the night; the urine not being excessive, the specific gravity low, and the urea diminished; but when the disease has existed for some time, the complexion becomes altered, taking on a peculiar pallor; headache, bronchitis, and attacks of dyspepsia, terrible foul smell from the mouth; appetite at first good now fails, especially for meats; the thirst increases for large quantities of water, and now follows anæmia and emaciation and great debility; vomiting either occasional or persistent, at times nothing but mucus being ejected, and so close indeed is the relationship between chronic gastric catarrh, and this disease, that we should never neglect to inquire into the state of the urine when a case of the former presents itself for treatment. Changes in the retina, causing a difficulty of vision; pulse is full and hard; pain in the loins, though this is not a constant symptom; dropsy is generally absent so long as the flow of urine is profuse, except in the later stages of the disease,

and when it does occur, it will generally be found conjoined with valvular disease of the heart; it shows itself first as œdema, beginning in the eye, giving it a peculiar look from œdema of the conjunctiva; next to the cellular tissues the pleural cavities are the most frequently invaded; then the peritoneum, but rarely the pericardium. We may have attacks of dyspnœa resembling asthma, followed by copious frothy expectoration.

Diarrhœa is not often present. If so, it is towards the end, and is profuse, watery and fœtid. Hæmorrhages may also occur from different parts of the body, viz.: nose, bronchi, stomach, womb, intestines and extravasations within the membranes of the brain. There are also present numerous cardiac and arterial changes. The heart is hypertrophied and the vessels sclerosed and degenerated. When the disease is well advanced, the changes in the circulatory organs are well marked, and the cachectic condition becomes distinct.

Complicated with and depending upon this disease, due to the condition of the blood, rendering the various organs morbidly susceptible to inflammation, are the following diseases: first in frequency is bronchitis; next, pericarditis; pneumonia, and pleurisy; erysipelatous and other forms of integumental inflammation happen, but less often than in disorders of which dropsy is a more prominent symptom. Peritonitis and congestion or inflammation of bowels occur but rarely.

The urine is increased in quantity even to two or three times its normal bulk, and if scanty at all, it is only after the disease has run a long course; its color is pale yellow or yellowish green; its reaction slightly acid; specific gravity low, varying from 1004 to 1015; albumen is generally present, though in some cases not until the later stages of the disease, and then perhaps only in such minute quantities as to require great care in its detection.

Dickinson thus sums up the chemical changes of the urine: Water increased, except in the later stages, then diminished; urea, uric and phosphoric acids are reduced, but not to a great degree until the urine becomes scanty and the end approaches; sulphuric acid and chlorine are diminished more markedly towards the last; albumen not invariably present and variable in quantity.

Prognosis.—This is very unfavorable, but the progress of the

disease is so slow that it is often unadvisable to say anything about it to the patient, as the fatal result may be long deferred; but we should bear in mind that the disease may be far advanced before its existence has been made out.

T. Grainger Stewart says this disease is never recovered from, and that the fatal results generally occur from uræmia, or from some inflammatory complication, such as pleurisy, pericarditis, bronchitis or pneumonia, or from some result of degenerative changes, as hæmorrhages from a mucous surface or into the membranes of the brain.

LARDACEOUS.—*Diagnosis.*—This disease is easily recognized during life, perhaps more easily than either of the other forms of albuminuria. Though its onset is gradual and insidious, it may often be detected at first sight by the worn and cachectic look of the patient. It follows in patients who have suffered from syphilis, phthisis, or other wasting maladies; the liver is enlarged, its margin being easily felt and sharply defined; the spleen is also increased in size, but usually the first symptom to draw our attention is an increase in the quantity of urine, and consequent necessity for frequent nocturnal micturition. This is accompanied by thirst; œdema then gradually makes its appearance; the ankles are swollen in the evening; it is most apt to invade the peritoneum, while the pluræ and pericardium are generally not involved. There is a marked tendency to inflammation, showing itself most often in the lungs, as pneumonia or pleurisy; inflammation of the pericardium and peritoneum being rare. There is also a great tendency to erysipelas, or to inflammation of the cellular tissues. Diarrhœa, which seldom occurs in the other forms of albuminuria, is a common and most fatal result of this; the motions are watery, without griping or pain; vomiting, with loss of appetite and nausea after food. Uræmic affections of the brain are the exception and not the rule.

The urine is increased in quantity, as a rule, and is clear and pale like water. If scanty it is darker and occasionally clouded with urates; it is of low specific gravity, often sinking as low as 1003, but if the urine is scanty it may rise as high as 1031; its acidity is decreased and blood rarely present. The urea is little, if any, diminished; tube casts are extremely few and mostly hyaline,

though they make their appearance at a very early period, while the albumen may be yet a mere trace; albumen is less abundant than in nephritis, but more than in granular degeneration. Phosphoric and sulphuric acids are reduced in quantity.

Prognosis.—This depends very much upon the cause or the character of the primary affection which causes the disease, that from syphilis being the most favorable.

Gerhardt claims that when the fundamental disease is curable the lardaceous degeneration can pretty certainly be removed, but notwithstanding this, and many similar opinions, the affection is a very grave one and sooner or later results in death, though this rarely occurs from simple lardaceous disease of the kidneys, but from some complicating process.

Diagnosis of Albuminuria from other affections of the kidney.—From passive congestion of the kidneys, due to cardiac disease, these maladies are distinguished by the general condition of the patient; the absence of cardiac disease and of congestion in other organs; also the character of the urine. In heart affections the urine is generally scanty, high colored; not of low specific gravity. It may contain albumen and deposit urates, but rarely blood, renal epithelium or tube casts. Hyaline casts may be present, but never in any large quantities; the presence of epithelial and fatty casts, or marked diminution of the amount in any case, proves at least the co-existence of actual inflammation of the kidneys.

From paroxysmal hæmatinuria and albuminuria these diseases are distinguished by their abrupt commencement and brief duration; by the marked nervous symptoms with gastric catarrh and sometimes slight jaundice, and by the absence of dropsy.

In hæmatinuria, also, the condition of the urine is very distinctive, the dark red color being due not to blood corpuscles, but to granular pigment, the deposit consisting mostly of this material and of hyaline casts.

In paroxysmal albuminuria again the amount of albumen is very large, and the number of tube casts extraordinary.

Hæmaturia, with tendency to suppression of urine is distinguished from albuminuria by the small number of epithelial tube casts, and in some by the complete absence of casts.

There may be a question whether the case is one of hæmaturia or commencing acute inflammatory nephritis, or one of chronic affection cirrhotic or cystic, in which hæmorrhage has occurred. The cases in which albuminuria simulates hæmaturia are generally the sequelæ of scarlatina and diphtheria, and even when these diseases have been overlooked, the presence of desquamation or of paralysis may afford us a clue, but the peculiar reddish deposit, rich in cells and epithelial tube casts, which occur in albuminuria, makes the case clear.

Again, when the question is between simple hæmaturia and hæmaturia with cirrhosis or cystic disease, the evidence afforded by the tube casts is not important, but the hypertrophy of the heart, the thickening of the arteries, the character of the pulse, the albuminuric retinitis, the low specific gravity of the urine and the small amount of urea which it contains as well as the tendency to hæmorrhage from other sources afford evidence of the presence of the chronic organic disease.

THE DIAGNOSIS OF THE DIFFERENT FORMS OF ALBUMINURIA FROM EACH OTHER.—The discrimination presents in simple cases but little difficulty. The points to be observed are the history of the patients; the amount and character of the urine; the presence or absence of dropsy; and the nature of the complications. The previous occurrence of exanthematic affections, of chronic wasting disease, or of intemperance, gout, or lead poisoning would afford some obvious indications. The mode of origin and progress of the disease is very important, for instance a case commencing actually with dropsy and diminution of urine is nephritis; one of less acute character with polyuria is lardaceous; and one commencing insidiously, with no marked symptoms until, perhaps, convulsions or dimness of vision appear, would be an example of granular degeneration. The leading symptoms of nephritis are diminution of urine, an abundance of albumen and of epithelial tube casts, with diminished urea and marked dropsy. Of the lardaceous form the prominent features are early and persistent polyuria and the existence of the same disease in other organs and absence of dropsy. In granular degeneration the insidious commencement, the gradual development of vascular and cardiac changes, with, in the later stages of many cases, polyuria, are the

most important phenomena. Other indications may be had from the complication of each form of the disease, and, in conclusion, in order to arrive at a correct diagnosis, careful inquiry and patient investigation are essential.

W. F. Edmundson, M.D.

Treatment.—In the treatment of acute nephritis it should be remembered that the solid urinary constituents vary with the amount of water excreted, consequently the aqueous part of urine should be increased as much as possible, relying upon a simultaneous increase of the other constituents. The urine is impeded in its exit by obstruction in its tubes, and the more completely and generally these are stopped up the less urine is there secreted.

The tubes being narrow and tortuous are easily obstructed, and the tendency of the disease being toward an extravagant epithelial growth, it is necessary, in order to prevent dangerous obstruction, that there should be a sufficient quantity of fluid to cleanse the accumulating cells.

The whole mischief is not due to the blocking up of the tubes, for the glandular structure would suffer from the embarrassment of the circulation were there no tubes to be obstructed; nevertheless it is as essential to the restoration of the organ that their channels be maintained, as it is certain that their closure would be fatal by barring the escape of the urinary excreta.

If the tubes can be relieved of their contents the congestion of the gland will be relieved by secretion, and, if the interstitial tissue be not too seriously involved, the organ will be restored to its healthy condition.

To this end we must secure an abundant passage of fluid through the kidneys, and must enforce such a diet regimen as will reduce to the minimum that nitrogenous excess which is excreted chiefly by the kidneys, thus furnishing effective means of irritation. Physiological repose is to be sought in prohibiting, as far as possible the use of nitrogenous foods, thus preventing the formation of urea and uric acid, and by providing an abundant solvent.

The kidneys must be relieved as much as possible from the labor of elimination, by keeping the patient from exposure to cold; by rest in bed in a room of moderate and uniform temperature.

The food should be scanty, and consist principally of gruel, arrow-root, milk, buttermilk, weak broths, etc. Water is the best drink, and alcoholic fluids are to be strictly forbidden.

Free perspiration is to be encouraged by hot-air baths and bedding the patient in blankets. After the general symptoms have improved, and the tongue becomes clean, mutton and beef broths may be indulged in, and, as digestion improves, solid food may be resumed, beginning with fish and fowl, afterward beef and mutton.

Flannel should be worn next the skin.

REMEDIES:

Aconite. When, after exposure to cold, the patient has high fever, rapid pulse, restlessness, dark scanty urine.

Apis. After scarlatina or diphtheria; urine scanty, high colored, containing uriniferous tubules and epithelium, frequent desire with passage of only a few drops.

Bellad. Uræmic convulsions, red face, sudden starts, or great paleness of the face, much moaning and grinding of the teeth; stupidity, half sleeping and waking. Renal region very tender to pressure.

Cantharis. Fever high, pulse rapid and hard; paroxysmal pains in the kidneys, the region very sensitive to pressure, even the slightest touch. Urging to urinate with evacuation drop by drop, and exceedingly painful Scanty dark urine, with burning in the bladder and urethra. Urine albuminous, containing cylindrical casts. Useful after burns.

Helon. When symptoms of approaching convulsions during pregnancy. Back aches across lumbar region; feels tired and weak; weariness, languor and weight in region of kidneys; burning, scalding when urinating; desire frequent and urging. Urine profuse, clear, light colored, albuminous.

Kali carb. Urine hot, scanty, frequent, sediment red and slimy. Urine blackish, foaming when shaken; tensive pain in the renal region of left side; sacculated swelling of the eyelids; swelling of the inguinal glands, and œdema of left foot, extending gradually to right foot and upward over the body.

Kali hydriod. Urine scanty, dark; micturition painful. Bright's disease with gout or mercurio-syphilis. Urine copious, frequent, pale and watery, or red as blood; unquenchable thirst.

Lachesis. After scarlet fever or diphtheria. Stitches from the kidneys, through the ureters. Urine frequent, dark, foamy, almost black; ineffectual urging to urinate, with burning when it passes; difficulty in breathing.

Lycopod. Severe backache, relieved by passing urine. Urine scanty, dark red, albuminous with strangury. Urine deposits a red, sandy sediment. Urine frequent and copious at night, and scanty by day. No urine secreted.

Merc. corr. Albumen in the urine, after diphtheria or in Bright's disease; great dyspnœa; colic and tenesmus of the bladder; urine suppressed. Offensive secretions; puffiness of the face and feet.

Phosphorus. Albumen and exudation cells in the urine. Urine profuse, pale and watery, or frequent and scanty. In complication with pneumonia, bronchial catarrh, ulceration of bones, etc.

Phytol. Weakness, dull pain and soreness in the region of the kidneys, most on right side, and connected with heat. Uneasiness down the ureters; chalk-like sediment in the urine. Urine albuminous, excessive, scanty, dark red, stains the vessel.

Plumbum. Bright's disease. Contracted kidney. Urine passed in drops; strangury. Urine dribbles, is high colored and fœtid.

Terebinth. Urine albuminous, scanty, turbid, dark with epithelial sediment; urine black, with coffee-ground sediment. Œdema all over; intestinal catarrh and diarrhœa; burning in the region of the kidneys. Urine deposits a dark, thick, muddy sediment. Urine smells like violets.

In treating chronic Bright's disease, it should be remembered that it will necessarily take a long time before any appreciable change will be manifest.

Vomiting and diarrhœa are of frequent occurrence, and if either is suddenly checked, the gastric and intestinal membrane acting as an emunctory for urea and other excreta of the urine, the patient may be suddenly cut off by convulsions, apoplexy, or effusion into some of the serous cavities, as the pericardium, the pleura, or ventricles of the brain.

While this is true, it must not be allowed to interfere in the selection of a remedy, as it is necessary in making a prescription to consider all of the symptoms, prominent among which are

vomiting and diarrhœa, and our prescription would be lacking in efficiency did we ignore these or hesitate to give a remedy for fear that other organs might suffer. The mode of action of the homœopathic remedy is to relieve, not in suspending action by paralyzing the organs, but in procuring subsidence of the symptoms by removing the cause.

We should endeavor to determine what organ is acting vicariously. The perspirations are sometimes spontaneously profuse, and the skin is by far the best emunctory for the vicarious elimination of urinary constituents, and therefore it is necessary and important to promote the action of the skin, if deficient, and encourage it if it be considerable.

When general anasarca prevails, absorption may be promoted by gentle pressure, but bandaging to promote absorption is not justifiable so long as the anasarca is increasing, as these effusions afford great temporary relief to symptoms which indicate the involvement of vital organs.

Patients should be encouraged to go about as long as possible, and care should be taken to have them well and warmly clothed in flannels, and protected from chills or drafts of cold air. The quantity of urea passed daily should be determined to ascertain to what extent the kidneys are capable of secreting and eliminating these products, and the diet should be so regulated, and such other means used, as will keep the urea and other constituents of the urine within the capacity of the diseased kidney.

The patient should select a residence where the soil is sandy or chalky, and the air mild and dry, in order that as much exercise as possible may be taken in the open air daily.

The diet should be light but nutritious. No pastry should be eaten, and stimulants must be used with caution, although when exhaustion is extreme their use is unavoidable. The principal meal should be eaten at mid-day and the last meal should be eaten two or three hours before going to bed, and should be light. The patient should go to bed early and rise early. Light but warm woolen clothing should be worn summer and winter.

Bronchial complications are more or less constantly present and should be carefully guarded against, as they are frequently the immediate cause of death in chronic Bright's disease. So long as

the patient is able to bear it, cold sponging and rubbing dry with a coarse towel every morning is an efficient preventive.

In addition to remedies mentioned under acute Bright's disease, we would mention

Argent nit., which is said to have cured cases. Acute pain about the kidneys, extending down the ureters to the bladder, worse from slightest touch or motion.

Arsen. Great anxiety at night, driving out of bed; vomiting of brownish masses, with violent pain in the bowels; palpitation of the heart; anasarca with waxy paleness; thirst for small quantities of water, but frequent; restless, particularly after twelve at night.

Arsen. hydrogen. Said to be very efficient. "Deadness" of various parts. Hair rapidly loses its color. Great fatigue and weakness; weak and prostrated on waking; urine suppressed, followed by vomiting; weak, very restless; hæmaturia and hæmorrhages from the mucous membranes. Dr. Cooper says it is the best remedy for renal hæmorrhage.

Benzoic acid. Sore pain in the back, burning in the left kidney, with drawing when stooping. Urine high colored; increased specific gravity; hot, scalding, ammoniacal; very offensive.

Brachyglottis repens has produced albumen in the urine, and is highly recommended by Dr. C. F. Fisher.

China. Urine turbid, dark, scanty; urine pale, becoming cloudy, or depositing a dingy yellow loose sediment; or scanty, greenish yellow with brick dust sediment.

Digit. Urine scanty, thick, turbid, blackish. Peculiar, seeming rheumatic, pains, and catarrhal affections of the lungs, with serous secretions.

Eupat. purp. Deep, dull pain in kidneys, also cutting pains. Urine very copious; urine scanty, albuminous and frequent.

Helleb. Urine scanty, dark, with floating dark specks; urine like coffee grounds; urine scanty and albuminous, or profuse and passed in large quantities. Anasarca and effusion in the pericardium or pleura.

Nitric acid. Urine scanty, dark brown, smelling like horses' urine.

C. C. Rinehart, M.D.

PHTHISIS PULMONALIS.

BY THE PHILADELPHIA COUNTY SOCIETY.*

Definition. Varieties. Etiology.—Tubercular phthisis, or pulmonary consumption, is a constitutional disease manifesting itself chiefly by certain caseous and tuberculous changes in the lungs. It is a progressive parenchymatous consolidation, which finally softens and breaks down, and at length is gradually expelled through the bronchi, trachea and mouth, leaving behind cavities or excavations of various sizes. Under favorable circumstances these cavities may close and heal, but usually the area involved in this destructive process is such that the organ becomes unable to perform its vital functions and death is the result.

Medical opinion is divided on the subject of phthisis.

According to the dualists, pneumonic and tubercular phthisis were once used as synonymous terms, under the impression that all consolidations of the pulmonary tissue were infiltrated tubercle, and tubercle in some form or other was regarded an essential constituent of the disease. Caseation was also considered a characteristic peculiarity of this growth, and as caseous degeneration is such a constant accompaniment of phthisis, this was proclaimed a tuberculous affection. Under the leadership of Niemeyer, many believe that phthisis is not always a tuberculous disease, since tubercle is only an occasional element in the causation of the trouble.

The unitarians, on the other hand, believe that tubercle or tuberculous matter is always the specific product of phthisis. According to Grancher, Charcot, Thaon, etc., in the masses ascribed to caseous pneumonia is found under a very considerable volume, and independent of common inflammatory products, the same elements, the same arrangements of elements, and the same evolution as in the typical granulation, so that between the two orders of lesion is but a difference of volume—little or miliary tubercles in one case, large or giant in the other, consequently the duality is only apparent. Let the lesion be small or broken into

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isolated nodules, or extensive and united into homogenous masses, it will be in reality nothing but tubercles under the microscope; hence phthisis is always tuberculous. The unity is thus re-established by histological analysis.

Koch, of Germany, goes so far as to declare it a parasitic disease, caused by the immigration of bacilli, and which is progressing a priori by the growth and propagation of these micro-organisms. According to this authority the bacilli met with in the tubercular material are not accompanying the tubercular process but the cause of the same and we possess in the tubercle-bacilli the actual tubercular virus. "And so," concludes Koch, "we have gained at last the necessary knowledge to define exactly the disease which we understand by 'tuberculosis,' a thing impossible before. A definite criterion for tuberculosis was wanting. One, considered miliary tuberculosis, phthisis, scrofulosis, *perlsucht* etc., all one and the same morbid process, while another, with equal right, took them to be different maladies. In future, it will not be difficult to say what is tuberculosis and what not. Not the peculiar structure of the tubercle, not its want of blood-vessels, not the presence of giant cells, will determine the question, but the demonstration of tubercle-bacilli either in the tissue by color reaction or by culture upon stiffened blood-serum. Considering this criterion as a guide, we have, according to my investigations, to believe miliary tuberculosis, caseous pneumonia, cheesy bronchitis, tuberculosis of the intestines, and of the glands, *perlsucht* of cattle, spontaneous and inoculated tuberculosis of animals, all to be identical."

These novel views were enunciated by him in a lecture delivered on the Etiology of Tuberculosis, on March 24, 1882, before the Berlin Physiological Society.

Were we to accept such an opinion, the etiology of tuberculosis would assume a different aspect and be confined to very narrow limits.

Little less exclusive are the individual opinions of other pathologists. For instance:

According to Rendu, the so-called tuberculosis nodule is not a specific element; it is found in a number of accidental neoplasmata. Tuberculosis is not a diathesis; it presents itself with the aspect of the parasitic diseases, always ready to germinate when the organism becomes debilitated.

Jean-Louis-Simon Joly's belief is firm that phthisis is tubercular and develops from diathetic predisposition, scrofula playing a foremost part; excessive lactation in women, the fevers, diabetes, and exhausting conditions, have a share as predisposing conditions. He disbelieves in the inflammatory origin of phthisis, although he admits a pleurisy is the antecedent of many cases of tubercular phthisis.

Greves sees in tubercle the result of a nutrition pathologically perverted by scrofula.

Hughes Bennett assigns as the cause of tubercle a disorder of the gastric digestion.

Treves believes that scrofula and phthisis are due to the same morbid process; that phthisis may be regarded as scrofula of the lung in like manner as a scrofulous lymphatic mass may be regarded as phthisis of a gland. He maintains that although identical in their nature, phthisis is by no means a common complication, either immediate or remote, of scrofula. If scrofulous patients (he says) are so prone to die of phthisis as some maintain, then phthisis must be a terribly prevalent disease, for there are few general maladies more widespread than is scrofula.

Lugol asserts that the natural death of the scrofulous is by consumption.

Hamilton that at least nine in ten of those who die of consumption are scrofulous subjects.

Ruehle that scrofula is one of the chief predisposing causes of phthisis.

Rindfleisch that tuberculosis, including phthisis, hardly ever occurs except in scrofulous persons.

Villemin admits that scrofulosis may so modify the vital tissues as to render them more apt to become tuberculous, but he does not know that the subjects of scrofulosis were more apt than other persons to become tuberculous. "Instead of asserting that patients dying tuberculous were scrofulous previously, why not assert that, being tuberculous, they have succumbed to an extension of the affection?"

Enough has been said to show the state of chaos in which all the doctrines relating to consumption are found; and we have to admit that since tubercle was first described the etiology of this

affliction has become so nebulous that it is really an arduous task to approach the subject without hesitation. Remarkable above all is this persistent attempt to find an anatomical element in order to give the disease its distinctive features. Perhaps, misled by their enthusiastic researches and exclusive ideas they do not see but one of the possible causes, or more probably one of the many results of an unknown fundamental cause.

Not being myself a practical investigator and with nothing but conflicting opinions before me, some too exclusive to prove satisfactory; others too absurd to be considered and few only acceptable, I am compelled to choose from the last the one best suited to my views and to answer the purpose of my paper.

Among all the authors I have studied, Jaccoud, of Paris, is the one who has offered the most acceptable proposition to me. He asserts that tuberculization is essentially and always the results of imperfect nutrition. While other pathologists misled by an exclusive point of view, do not see but one of the possible causes of the disease, thus confining its etiology to such narrow limits, Jaccoud offers a proposition, which in its general formula embraces under the same title all the conditions which, with different points of departure and by diverse process, can finally be ascribed to insufficient nutrition, or as he has later called it, "constitutional hypotrophy and distrophy."

Numerous, very numerous, he says, are these conditions, and in this vast domain I fortunately find myself far from the too exclusive conception of Graves and the no less narrower idea of Bennett. And, in fact, there is not one of the many and divers acts of nutrition which cannot create by a persistent disorder the state of nutritive insufficiency which characterizes the tuberculous diathesis: digestion, absorption, assimilation, hæmatosis, hæmatopoiesis. All these convergent elements, derived from an unique centre, which is nutrition, can with equal power intervene in the production of the generating hypotrophy of tubercle.

His broad province includes that class of individuals whose deviation from a healthy normal state is thought to be a good soil for the development of consumption.

While he places constitutional debility from imperfect nutrition first on the line of the etiology of tuberculosis, he at the same

time demonstrates that, concerning its mode of production, the tubercle ought to be included with the inflammatory products, since whatever the histogenetic theory adopted may be, the exudation, or the cellular formation, is but the final expression of an irritative process. Thus he calls it "phymatogenetic irritation."

He remarked later that these novel views about the pathogeny of tubercle condemn at the same time both the theory of epigenesis maintained by Laennec and that of heteromorphism, while they besides establish and give light to a very important practical fact, namely, the influence of inflammations on the development of tubercle.

He reproduced the same terms of this exposition, still later, in order to give to this retrospective view all the necessary precision. "Phlegmasia of the respiratory organs (he says in his annotations to Graves' Clinics) have here a twofold mode of action. At one time they hasten the evolution of the pre-existing tubercles; at another they favor the growth of these abnormal products in lungs which thus far have remained undamaged." The first influence was never gainsaid, it could not be; but the second has given rise to many discussions, which have not ended yet; and it could not be otherwise, as in all this time with Laennec tubercles have been regarded as a new tissue, a true living tissue, possessing in themselves the causes of the changes they undergo, and it was impossible, even by taking into consideration individual predisposition to conceive the least correlation between the existence of a pneumonia, for instance, and the appearance of this special tubercular tissue.

He thinks this difficulty does not exist to-day, and that we can easily understand how a pneumonic exudation in a predisposed individual can be modified in his intimate constitution by this predisposition itself and deviate from its natural evolution. * * * "We can retard, if not prevent, the generation of tubercle in predisposed persons by laying down precise rules for the prevention of development of inflammatory affections in the broncho-pneumonic apparatus." Such is the practical application of these new ideas on pathogeny.

In 1869, in his work on Pathology, he again affirmed the injurious influence of the broncho-pleuro-pneumonic irritations, which

he places as important occasional causes in the etiology of the disease. He proclaimed the practical importance and application of his principles on pathogeny, under the following proposition: "Les seules bases solides du traitement prophylactique et du traitement curateur sont fournies par la notion de nutrition imparfaite, et par la connaissance de l'influence nocive des phlegmasies."

Finally, in his clinical lessons (1872 and 1881), he formulated the same principles in very analogous terms:

1. Caseation at all ages is a process of debility.

2. The formation of true tubercle is also a process of debility.

3. Common accidental irritations, of whatever kind they may be, attacking the larynx, bronchi or lungs, exert an injurious influence on tuberculosis and phthisical lesions. They have three different modes of action: In individuals yet sound, but predisposed, they favor the development of tubercle on the pneumo-phthisic alterations. In persons already affected, they provoke new sprouts or germinations. They aggravate and hasten the course of pre-existing disorders.

4. The fever is a process of consumption.

These four principles, according to Jaccoud, govern the entire therapeutics of consumption, as they include the reasons of exclusion of certain methods of treatment, and at the same time point out precisely the ground upon which we should maintain or uphold our intervention.

These logical conclusions, which Jaccoud was the first in proclaiming, and which I accept as the best conception to meet the difficulty, have since 1862 made their way, and have become the object of a general assent. Many of the most eminent observers have met on the same ground. It could not be otherwise, as they are the nearest to truth, or at least the most convincing.

I then, with Jaccoud, admit the anatomical unity of pulmonary phthisis as pronounced by the microscope, but this I do conditionally, so that the teachings of the future may always find room in my mind, and that I may be placed in a proper position to accept any clear and well-defined results, which may come later. Especially am I so inclined since the re-establishment of this unity, which at present seems to have come out victorious over so many

powerful attacks, can never carry us back to fatalism, or to a contemplative therapeutics, as it could be inferred from the theoretical conception of Laennec.

The unitarian conclusion to-day triumphant, is an anatomical conclusion. True enough, it re-establishes, under new bases, the histological unity, but the clinical duality remains undisturbed.

In point of view of the etiology (especially in the inherited form), in point of view of the symptoms and course, in point of view of prognosis, the pneumonic or caseous phthisis, found tuberculous or not by the microscope, differs and always will differ from common tubercular phthisis. This duality is our guide in prognosis, and our constant endeavor should be to determine for each case which of these two morbid modalities is concerned in the trouble.

Let us then admit, for want of anything more conclusive, that caseous or pneumonic phthisis, anatomically speaking, is also tuberculous, but in so doing let us add that it is tuberculous in its manner, that it is so under another form; it has its own causes, its outset, its proper evolution; it has its special prognosis, so remarkable because it is particularly grave in its initial stages and relatively favorable in the secondary ones. In a clinical point of view, however, let us remain dualists. This, it seems to me, is the most prudent position to take at present. The doctrinal correction is simply this: The anatomical unity commands us to see but a morbid form there, where the duality admits two distinct varieties.

In view of all this, I have come to the conclusion that the recent microscopical teachings do not interfere in the least with the practical ideas of the dualists, neither with our therapeutics.

As the present paper is not confined to a single form of phthisis, I will describe several admissible pathological varieties, which will indicate their etiological origin, and, commencing with the *hereditary*, I will remark, that on account of its origin, it is among the other varieties the one which offers the least favorable chances, and this because the diathesis or vicious disposition of the organism to make tubercle is here in its maximum of power; coeval with the individual's conception, it is an integral part of his physical personality; it is one of the attributes; it remains active as long as life itself; it is not spent or used up by the first manifestations

which it realizes, so that if these initial manifestations heal, others almost infallibly will follow, imposing upon the organism a struggle always new, and to which it will necessarily succumb. The greater the number of dead progenitors and collaterals, the greater the power of the diathesis, and the stronger its invasion, and when both generators are simultaneously overtaken in the act of conception of the product, the activity of the original disposition is really uncontrollable. Besides, when chronic phthisis is hereditary, it manifests itself almost always in the common anatomical form of the disease, that is, in the granular form, and this heals less frequently than the pneumonic when it becomes chronic.

But if the hereditary is less accessible than others to cure, it can, however, be benefited by preventive treatment, and Jaccoud believes that it offers a particularly favorable field to prophylaxis. The inherited form reveals in early life the morbid eminence, either precocious or tardy. The disease is never an unforseen surprise, it is the realization of a long existing dread, consequently the prophylactic treatment can be initiated much earlier than in the other circumstances; it can precede for several years those signs of transformation from virtual into real disease, and the longer the intervening time the better the chances. Aware in due time of the approach of the peril, we have time to act, and this particular situation of the hereditary diathesis in regard to prophylaxis may compensate, in certain measure, its redoubtable unaptness to cure.

The *inbred* or *innate* form, which must not be confounded with the inherited, is met with in individuals whose parents are not tuberculous, but enfeebled by scrofula, syphilis, cachectic diabetes, alcoholism, or simply by excesses or bad hygienic conditions. Outside of all these causes, the offspring of the disease may yet be the consequence of consanguineous marriages. The children born with the phymatogenetic diathesis are no more no less than those of the preceding group; this diathesis, therefore, is innate in them, but not hereditary, as the parents were not affected. If we disregard or fail to recognize this origin, we will necessarily place this class of phthisis with the acquired variety. This circumstance seems to explain the exaggerated frequency of the latter. It will be proper to remark that these mischievous conditions, whose

presence in the progenitors accounts for the innate diathesis of the children, are exactly the same ones which, sooner or later after birth, give rise to the diathesis of the acquired variety; the only difference is, that in one case the nosogenetic deviation needs two generations to arrive at the production of tubercle, whereas in the other an individual life is sufficient for that. Hence it can be properly said that tuberculosis is the common result of all the constitutional deterioration of the family as well as of the individual. Thus created and characterized by the etiological elements which belong to the preceding generation, the offspring of which suffers passively the noxious influence, the inbred diathesis is a little less incompatible with the idea of cure than the hereditary; and this, it seems to me, because it gives more constantly expression to the granular form, and because it is often associated with scrofula, and consequently it partakes of all the good and bad chances of the scrofulous phthisis.

Acquired phthisis can be conveniently divided into two groups—primitive and secondary—The first comprising those cases in which the pneumonic tuberculization, spontaneous and independent, can only be attributed to general debility, to the hypotrophy, or distrophy, which is the common base of all forms of phthisis. The second embracing those cases in which the pulmonary process coincides with an actual or anterior constitutional disease to which it is reasonably imputable.

In regard to cure, the primitive acquired or idiopathic is the most favorable of all. No matter what its anatomical form may be, granular or pneumonic, the extension of the lesions are supposed to be equal in both cases.

The only generative condition here in play (at work), is the constitutional hypotrophy; this debility which by itself, or under the influence of a common irritation (occasional cause), brings about the formation of this inferior product, which is the tubercle. This debility is the consequence of the physiological or pathological conditions which have as a result the excess of the organic expenditure, or the insufficiency of the receipt, it is accidental and acquired, it is not inherent to the constitution of the individual itself, and by reason of this accidental or contingent character, it can be and is more efficaciously battled with by a timely

intervention. Consequently, in point of view of the constitutional restoration, the situation is better than in the preceding forms, and as on the other hand the pulmonary lesions in the common form of acquired phthisis present a very gradual development, and as they remain for a long time circumscribed or confined to a small extension, it is evident that the ground is as favorable as possible for the cure, either if we appreciate it from the general condition, or if we choose to compute the chances from the local alterations.

In order to have an exact and complete idea of the question of cure in regard to the primitive acquired forms, it will be convenient besides to distinguish between a precocious acquired phthisis, which appears from 15 to 35 years of age, and a tardy, which develops from 35 to 40 and beyond that age. When the tardy variety is really primitive, in the sense of the above definition, that is, independent of all constitutional disease, actual or anterior, it is more amenable than all the others to a well directed treatment.

Observations have taught that the ordinary causes of these consumptions are repeated colds in individuals worn out with excessive work and misery. Under such circumstances, the disease has a naturally slow course; the constitutional restoration is promptly obtained by means of a treatment which should be for the patient a total revolution of its hygiene, and on this ground, favorably modified, the lesions can retrograde wholly, or at least cease to extend, so that if an absolute healing is not obtained, in a great number of cases it can bring about a relative improvement, the importance of which cannot be over-esteemed. By their condition of age and etiology these tardy consumptions are the least diathesic of all, hence the easiest to cure.

Secondary acquired phthisis is attributable, in regard to origin, to an actual or previous constitutional disease. The scrofulous phthisis, in which some physicians, partisans of the identity of the two affections, choose to see but the latest and most marked manifestation of scrofulosis, is the most frequent, and at the same time the least contestable, of all the secondary phthisical affections. In regard to cure, it is not considered as favorable as the primitive acquired, but it is undoubtedly less formidable than the inherent and the innate, as long as the lesions are limited to the lungs

alone. The evolution is remarkably slow, and this slowness, natural in manner, appears even in the pneumonic form, which never presents the acuteness and rapidity by which it is very often characterized in the other etiological varieties. The physician has time to act, and the scrofulous distrophy, which is the bottom of the morbid state, whatever the local determinations may be, is of those which can be effectually improved by our therapeutic means. Consequently, even then the cure can be effected, and in default of a complete healing, we always ought to expect and endeavor to obtain that relative improvement which secures for several years, and even occasionally, an indefinite immunity.

On the other hand, when these lesions are not strictly confined to the lungs, the scrofulous phthisis loses all the favorable chances which have been mentioned, and it can assume an extreme gravity, either because the ganglionic changes expose the patient to the accidents of a mesenteric, bronchial or cervical adenopathy, or because the caseous centres badly extinguished, and, dating from the infantile phase of the scrofula, threaten at every instant the secondary infection, which can be construed by the acute granular.

The *arthritic phthisis* is very rare, and, consequently, less important than the preceding. It may be stated, however, that it is only for convenience sake and rapidity of speech that we can adopt this denomination. Nothing proves that the disease is begotten by the arthritic diathesis, as scrofulous phthisis is directly provoked by scrofula, and the expression of arthritic phthisis should only be understood as an abbreviatory designation of the phthisis developed in organisms already suffering from arthritis. Next to this difference, drawn from the etiological mode, another fact confirms clearly the legitimacy of the distinction. Pulmonary tuberculization in those of an arthritic diathesis owes to the ground upon which it evolves some symptomatic particularities; it is tardy and slow, it has very circumscribed and not very extensive lesions; often the pneumorrhagies have not their usual gravity; the ulcerations once formed are remarkable, often by their extension, always by the slight impression they make on the general condition; ordinarily they are not the seat of an abundant secretion; on the contrary, they frequently reach the state of dryness and do not give rise to any notable expectoration. But these peculiarities,

although important, are not such as to characterize in themselves the disease, neither to help us to recognize it in the cases where we are deprived of all indications concerning the antecedents of the individual. Only by knowing of the arthritic disease is it that we can conceive the idea of an arthritic phthisis, and it will be impossible to resolve the inverse clinic problem, that is, to infer the arthricism from the characters of the phthisis. If we remark, on the other hand, that in arthritic individuals the relation from cause to effect between the arthritic and tuberculous diathesis is anything but certain, and that in all cases, it is not explained in its modality, we will admit how far we are from the fixed and definite morbid class, and that only by a remote and debatable analogy is it that we can place this phthisis alongside of the scrofulous. Under the benefit of these reservations is it that I speak of an arthritic phthisis.

The above clinical characters of this form of phthisis give us the presentiment that it is particularly accessible to cure, and observation confirms this presumption. The slowness of its course in one side; its torpidity, which is very rarely interrupted by acute deviations, in the other, and finally the long lasting period of induration, are surely circumstances which allow of hope for a successful treatment, as they offer a sufficient prolongation of time to the effect. Besides the initial lesion, always circumscribed, can remain indefinitely in the state of induration due to a fibro-sclerotic transformation, which precedes all work of softening; a portion of the superior lobe of one or both lungs is then lost for the function, but the tuberculosis is healed even before reaching the stage of phthisis. In conclusion, the aggravation, redoubtable among all, which results from successive tuberculous production, is wanting in the majority of cases, the lesions remaining circumscribed to the parts reached by the first manifestation of the disease; the destructive softening and elimination can be mastered without involving an irremediable ruin, and this stormy phase may be conducive, with or without persistency of cavity, to a very long, sometimes even to a definite recovery.

By taking the reverse of all the preceding propositions we will have light on the bearings of the *diabetic phthisis*, with cure. None of the authorities who had occasion to study this form have

ever found a single case which allowed them to assign it a favorable contingence. Theoretically we may expect a different result for a phthisis appearing in good time in the course of diabetes, while this disease may yet be subdued and before it has brought serious damages to the constitutional state, but observations have demonstrated that these relatively good conditions are never effected. Phthisis here is the late manifestation of diabetes mellitus; it is constantly wedded to meagre diabetes, that is, to the gravest form and period of this affection, and when it appears, it only serves to hasten the fatal termination, by adding to the diabetic symptoms proper, the dangers of a complication which the previous alteration in the constitution of the patient renders fatally incurable.

Another variety has been described under the name of *herpetic* which I consider just as doubtful as the arthritic. It can only be admitted under the following circumstances: An individual has been presenting habitually and for a long time the cutaneous manifestations of herpetism (psora), then by a spontaneous evolution, or more frequently under the influence of an accidental or therapeutic cause, these manifestations disappear, that is they cease to show themselves for a time, longer than the maximum of the intervals which separated them thus far, and this cutaneous repercussion is followed at the end of a time nearly equal to the aforesaid intervals by the development of the primary pulmonary symptoms. It is only then that we may be justified in speaking of a herpetic phthisis; in any other case this denomination would be arbitrary; it only expresses a supposition engendered by a theoretical view. When the above mentioned conditions are present there is a favorable chance for the cure of the pulmonary trouble, provided we lend it a timely and judicious intervention.

If we accept the histological establishment of tubercle, either small or large, as the sole and constant characteristic of phthisis, we cannot very well admit a syphilitic variety, as we would have to suppose then that there is a syphilitic tubercle.

Syphilis may give rise to severe pulmonary lesions, which are for the organism a mighty cause of consumption, but these lesions must be considered different from those of tuberculosis, and then the disease which they characterize can have no claims to be considered as an especial form of phthisis, in the actual anatomical

sense of the term. It would be a pulmonary syphilis rather than a tuberculosis of the lung.

One thing is certain, however, and this is, that syphilis like all diseases and influences highly debilitating may cause, in the course of time, the state of constitutional hypotrophy favorable to the development of tubercle; but of course such tubercles, if produced, will not be for this reason of a syphilitic nature. Consequently syphilis, in the etiology of tuberculosis, ought to be placed alongside of the chronic intestinal fluxes, prolonged suppurations, excessive lactation, insufficient alimentation or aeration, etc., but could never serve as a base and characteristic of a distinct pathological variety.

According to this, then, it becomes an important duty to discriminate between a syphilitic consumption, due to an evolution of pulmonary gummata, and a tubercular consumption.

Other forms have been also described by various authors, which properly cannot occupy an independent position among the distinct pathological varieties of phthisis. Among these I may mention a form specifically alcoholic in nature, which has been called consumption of drunkards. According to Richardson, of England, who claims to have first defined and described it in the year 1864, under the name of alcoholic phthisis, it holds a fair numerical position in the history of consumption. He states that in an analysis of 2,000 cases of phthisis pulmonalis, which came under his own medical observation and care, he found that 36 persons or nearly two per cent. were afflicted with the disease under the pure alcoholic type.

It usually occurs in advanced life, due in a great part to the slowness with which this poison acts.

"Persons stricken with this malady were previously considered healthy, and judging by the figure and conformation of their bodies, we would hardly ever expect such results. This health is, however, after all, apparent only. If we study their condition closely we find enough element of disorder and when subjected to unusual excitement or unusal fatigue, their balance of strength against exertion is weakened and an extra quantity of alcohol is required to bring them up to their needed activity. Still they pass for healthy men; they look healthy, and they retain their

good looks to the last. We cannot trace in them the alcoholic face of the complete sot, with its blotched skin, purple-red nose, dull protruding eye and vacant stare, neither will we observe the wan, pale, sunken cheek of the ordinary consumptive. The face, in short, is the best part of these subjects of alcoholic phthisis. They are not of the class of drinkers who sleep long, take little exercise, and grow dull, pale and pasty-looking, but are those who take moderate or short hours of rest, go on actively through their duties, and, primed by frequent resorts to the spirit cup, live as much, work as much, see as much, and enjoy as much as they can. They are rarely intoxicated, but constantly are 'mellow.' Beer and thin wines are to them as water; they can take strong wine *ad libitum*, and even under strong spirit are less influenced than other men, unless—to use the pitiful jest in which they indulge—they 'pile on the agony.' When they are fatally stricken, often when their muscles have lost their power, and the clothes hang like sacks on the emaciated body, their countenance is still ruddy, and the expression firm; so that friends, too ready to be hopefully deceived, believe in recovery when every chance of it has passed away. In some instances death is so quick from this disease, that the body generally is not greatly emaciated, but, like the face, conveys the deception of strength; and, as a rule, those profuse and lowering perspirations which accompany ordinary consumption are not now a part of the phenomena."

"The phenomena are not always developed at a time when the sufferer from them is indulging most freely in alcohol. On the contrary, it is by no means uncommon that the habit of excessive indulgence has been stopped for some time previous to the development of acute symptoms. The reasons assigned by the patients for this abstinence vary. One man may have been strongly advised by his friends to abstain, or may himself have undergone a certain measure of reform; another has been led by the reading or hearing of arguments on temperance; a third by want of means to obtain the indulgence; but by far the larger number affirm that a time came when the desire for so much drink did not occur to them. They will state that they tried the round of the various spirits, but found that none agreed with them as before, so that at last they were driven to rely on beer as the only drink they cared for. We

read the meaning of all this clearly enough from a physiological point of view. We read that the body has been resisting the alcohol; that it could not do away with it as it did when all the excreting organs were in their full prime, and that those drinks only can be borne in which the amount of alcohol is least. But the sufferer does not comprehend the fact, and, therefore, he not unfrequently concludes that his increasing languor and debility are due to the necessary withdrawal of the stimulus on which he seems to have been actually depending during the greater part of his life."

"The signs which first indicate failure of health are usually those of acute pleurisy. There is stitching pain in the side, quick, sharp, startling. After a time the pain becomes continuous, and when it subsides suppressed breathing, or difficulty of filling the chest, is at once felt and recognized. This difficulty is due to the circumstance that a portion of the lung has become adherent to the inner surface of the chest. The next sign indicating that the disease—consumption—is present, is, usually, vomiting of blood. In two-thirds of the examples to which my attention has been directed, this has been the sign that has first caused serious alarm. It is commonly on this event that the physician is called in, who examines the chest to find a condition that is hopeless. From the date of the occurrence of hæmorrhage, all is down, down towards the grave."

"There is no form of consumption so fatal as that from alcohol. Medicines affect the disease but little, the most judicious diet fails, and change of air accomplishes but slight real good. The man suffering this form of consumption may linger longer on the highway to dissolution than the victims of other forms of the disease; but there is this difference between them, that the others may leave the highway to find a by-path to comparative health, while he never leaves it, but struggles straight on to the end. In plain terms, there is no remedy whatever for alcoholic phthisis."

This is the sad picture which Richardson makes of this class of consumptive subjects.

There are other circumstances which may become elements of disorder and bring about, directly or indirectly, the evolution of pre-existing germs, or favor *de novo* their development in predisposed organisms.

Tobacco, for instance, has often been credited as one of the causes of pulmonary phthisis, but, as Richardson so well asserts, it is doubtful whether smoking can be adduced as a prime cause of the disease. Obviously, he says, it has been in individual cases a co-worker in inciting and rousing to action the inherent germ of the disease, and also increased the pulmonary injury during peculiar conditions of the system, which have been brought on by other and more determinate causes. Its excessive and prolonged use may, like all debilitating influences, bring about the state of constitutional hypotrophy which is so favorable to the development of tubercle, but primarily smoking does not come into the list of the causes at all. Of course, when the trouble is once set up, smoking may aggravate it; or, when certain efficient causes are at work to induce this affection, it will lend weight to the result; this is easily understood if we consider that the long continued inhalation of impure air is highly pernicious to that class of sufferers. There is not the least doubt that consumption is a disease that is highly intensified when the sufferer from it inhales in the smoke of tobacco, carbonic acid and the various other products in tobacco smoke, the action of which is so injurious on the blood.

Besides, smoking interfering, as it does in such cases, with breathing, brings about or increases gastric derangements. A blood purely oxygenated fails to produce the digestive fluid freely, and the consequence is both perverted appetite and enfeebled digestion. One of the most common accompaniments of consumption is indigestion, and such a derangement intensified by the act of smoking adds, therefore, trouble upon trouble, and hastens that destruction which the disease of itself is sufficiently competent to enforce. Hence the necessity of insisting on the abandonment of this injurious weed when laboring under this disease.

Tobacco dust may likewise become a source of irritation to the respiratory mucous membranes, inducing or increasing the pulmonary lesions. Phthisis among cigar-makers and strippers is not an uncommon accident.

Other occupations, such as stone-cutting, grinding and polishing of steel, dressing of flax and feathers, carding of cotton, sewing (especially with machine), mining, etc., are often productive of

phthisis; either as direct sources of irritation from inhalation of foreign particles, or favoring the state of constitutional debility, by the combined operations of sedentary employments, impure atmosphere, exhaustive work and bad alimentation.

Readily predisposed individuals also are those who preternaturally develop their muscular systems, as in such people the lungs are always found habitually overworked. It is a well-known fact that many of the professional athletes die early of consumption or heart disease.

Too frequent loss of semen, in any form that may happen, deteriorates the constitution and paves the way to consumption. Dr. Cotton, of England, most emphatically asserts "that of all vices none are more apt to lead on to consumption than the unnatural or unrestrained indulgence of the sexual passions, and when it occurs in youth the premature exercise of the sexual passion is extremely destructive. To this cause alone the germs of tubercle are very frequently traceable, and I am convinced that the many bearings of this subject upon physical and mental energies have a much closer and more frequent relationship to phthisical affections than we can ever expect, from their peculiar nature, to see fully demonstrated."

There is no etiological problem as interesting and complex as the influence of climate upon this disease. It attains here a greater meaning than elsewhere. Equally powerful for good as for evil, if rationally or blindly applied, if accurately or viciously adopted. The impression exerted on the organism by the various climates is in a certain measure independent of the fixed and describable phenomena which constitute the climatology of any given region. With very similar thermic resources, with obviously allied barometrical, hygrometical and anemological means, two regions can be, notwithstanding, strongly dissimilar in their effects upon the healthy and sick. The especial impression of a climate, different from that in which the individual was brought up, can bring about, through the medium of the bronchi, catarrhal inflammations, which, involving the lungs, may become a source of phthisis. A tropical man in going to a cold country becomes peculiarly liable to phthisis; while death from consumption in the tropics is not so common among Europeans and Americans. A change of climate

also is not always followed by good results in consumption, and this, it seems to me, depends in a great measure on the want of direct acquaintance on the part of physicians with the different localities resorted to. Individual experience is a better ground of choice than any climatic theory yet established. Many warm regions are damp, and humidity has not only been supposed to exercise a considerable influence in the production of phthisis, but has been proved to hasten the fatal result in already affected lungs. Uniformity and dryness are more important than warmth, and that climate which will allow the patient the greatest number of days out of doors will be the best. Finally, it has been observed that phthisis is more frequent in temperate climates than in very cold or very warm ones.

In regard to race, I may state that observations seem to have fully demonstrated the family proclivity and susceptibility of the Saxon, the comparatively little predisposition of the Celtic and Latin, and the almost complete immunity of the Hebrew from phthisis. Richardson believes that this peculiar privilege of the Jews is due to 'soberness of life.' As to the Saxon race he thinks that besides the injurious habits of life, the allies of this disease, struma, tabes mesenterica, and tubercular change generally, are most commonly met with in members of this family. He further asserts that "the special inroad on vitality made on other races by disease are not easily determined because of the difficulties arising from temporary admixture of race." "Physiological peculiarities may account for predispositions to disease belonging to typical classes of the human family. What these peculiarities are we are as yet unable to determine. Whether they are primitively impressed on a race, or are acquired, is a question that can only be answered when the exact relationships of disease to race are discovered. My own view is that acquired and transmitted qualities and specific existing social peculiarities are sufficient agencies for the production of all the known variations of vitality belonging to peculiar races."

As to age, from 18 to 35 years is the time of life most subject to it. In young children it is rare; and in the aged, although of frequent occurrence, we should not lose sight of the fact that phthisis in advanced life is frequently the termination of a

prolonged case, which commenced many years previously. The progress of this disease is unquestionably greatly influenced by age, the acute form being most common in young and the chronic in elderly persons.

Phthisis is generally held more common in females than in males, but there seems to be no sure ground for this conclusion.

Among the predisposing causes some authors give congenital stenosis of the pulmonary artery.

A certain amount of fat is most necessary to the proper growth of tissues, and an insufficient supply of it leads to deterioration. Fothergill asserts that fat is an essential constituent of the food of growing children, and that persistent refusal of it is a common cause of tubercle. He expresses himself thus: "It is painful to see children at table permitted to reject every particle of fat, and then too commonly in time compelled to take cod-liver oil; the fears of their parents restoring to them that firmness they should never have laid aside. Still more painful is it to know that the absurd caprice, if persisted in will, in all probability, lead to such a condition as may result in tubercle. For there is no doubt, however strong the inclination to wish it were otherwise, but that this abstinence from fatty food too commonly paves the way to consumption."

Trousseau and Pidoux maintain that the tubercular diathesis is often masked under the form of chlorosis, and that in practice, whenever a young girl has some symptoms of chlorosis or merely anæmia, iron is sent for in haste, thus often spurring into activity a commencing phthisis. According to this authority, iron in such cases does more harm than good. In some instances, they say, women, though strongly predisposed by constitution or inheritance, have escaped all complaints of the chest for several years, while in a chlorotic condition, but when subjected to treatment with iron, acute phthisis has quickly followed the cure of the chlorosis.

And, finally, as I do not think that the evidence thus far produced is strong enough to conclude that phthisis is not contagious, I do not hesitate to indorse the following precepts: To maintain ample ventilation. To avoid inhalation of breath from phthisical lungs. Never to sleep in the same bed with consumptives. Never to nurse an infant when suffering (mother, etc.) with phthisis.

Symptomatology.—The symptoms of pulmonary phthisis may be divided into two groups or stages. The prodromic, or those preceding the development of physical signs; and those present from the first manifestation of physical signs to the termination of the disease. The early symptomatology of pulmonary consumption is variable. In few diseases do the prodromic symptoms differ more decidedly than in phthisis. In some individuals the affection finds its way into the system so insidiously that its presence is frequently not suspected until serious inroads have been made upon the vital forces. In most cases when the patients present themselves to the physician, an examination reveals the fact that the disease has been in operation for some time. Occasionally cases of incipient phthisis, suffering from slight cough, loss of appetite, general indisposition, have sought advice, in whose lungs experts in physical diagnosis have failed to find positive evidence of the disease. Certain symptoms, premonitory of oncoming tuberculosis may, and often do, manifest themselves in patients to a greater or less degree; these I will designate as prodromic symptoms.

Prodromic Symptoms.—The patient complains of a feeling of coldness all over, or a coldness of the extremities only; the *appetite* may be capricious; certain articles being taken with a relish; or it may be almost entirely lost; the individual never gets hungry, and the stomach rebels against what is eaten. This latter symptom is a prominent one in the anæmic condition of young girls suffering from menstrual difficulties. There is often a peculiarity of appetite, such as a fondness for salt meats, pickles and vinegar. Bulimia may exist for several weeks, being followed by excessive pulmonary hæmorrhage, this being the first recognized symptom of acute tuberculosis. There may be an aversion to fatty articles of diet, but this symptom is not now held of as much importance as it was by writers of fifteen or twenty years ago. It is well known that persons with undoubted incipient phthisis take, digest and relish fatty articles of food, while to others of vigorous constitution, it is repugnant and cannot be digested even in small quantities without considerable inconvenience. If the disgust for fatty food is linked with a marked rise in the temperature and other recognized constitutional symptoms, it is of some

weight as a premonitory symptom. *Indigestion* is one of the most frequent symptoms in developing the tubercular state. It is seldom absent, especially in those cases where the temperature rises, and where it (the rise of temperature) is associated with other constitutional symptoms. The indigestion becomes more marked as the case progresses, it takes on various forms, there may be a sense of dragging weight at the pit of the stomach, with sudden repletion, associated with or followed by eructations, either acid or alkaline; frequently a portion of the meal is vomited, without nausea of any import preceding or following the act; these symptoms usually occur about half an hour after eating. In close attendance upon the above symptoms there will almost invariably be found *loss of flesh;* it is usually a gradual loss extending from six months to several years before any decided change in the lungs can be detected. If a patient gradually decreases in weight, and there is a predisposition to tuberculosis, we should be apprehensive of the onset of phthisis pulmonalis. In cases where the development of phthisis is protracted we frequently find irregularity of the *alvine discharges.* In most of the cases it consists of irregular periods of constipation, alternating with diarrhœa; defecation is associated with more or less tenesmus, or an uneasy feeling is experienced by the individual; the fæces consist of hard lumps covered with a frothy mucus. These alvine symptoms are worse in patients whose habits are sedentary. In females we repeatedly have *menstrual disorders,* such as diminished and absent menstrual flow, dysmenorrhœa, etc. It is usual, however, not to find suppressed menses as a symptom of phthisis until the physical signs are well marked. With these symptoms, especially in slowly developing cases, there is joined a *pallidness* of the surface. This differs from the swarthy appearance of cardiac disturbances, and the waxy complexion in renal complaints. The skin has a peculiar tight, bleached appearance. To this may be added the evening *hectic* flush. In these cases you will find *muscular weakness*; they complain of a tired feeling; there is an indisposition to physical exercise, in fact an inability to perform the usual amount of work or labor; these symptoms are present, the physical signs being still negative. The patient's temper is irritable, cannot stand neglect. At this stage they are often very anxious and nervous as to their condi-

tion, in strong contrast to the stolid indifference often shown later, when, in defiance to the physician's opinion and with every symptom to the contrary, they insist they have not the disease.

The mind: In some individuals, especially those of a desponding turn of mind, we frequently recognize as an early indication of tuberculosis that the imagination of the patient, from previous over-anxiety in regard to his condition, is blunted, and that there is a dullness of intellect. This is by no means the customary state of affairs; the fact is we, as a rule, find an unusual brightness of intellect. This vividness of imagination, and unaccustomed state of mind, especially in the young, attracts the attention of the parents and friends, who begin to entertain great expectations as to their future career, when suddenly a profuse pulmonary hæmorrhage ushers in a train of symptoms which ruthlessly destroys their fond hopes.

Hoarseness is very apt to be a prominent symptom throughout the disease. In a group of cases which Dr. Hughes Bennett* terms laryngeal phthisis, the laryngeal trouble seems to precede that of the lungs, and at times, especially when the laryngeal symptoms give rise to a hoarse, rough murmur on inspiration, they completely mask the pulmonary trouble, and the real lesion frequently escapes detection, even after careful physical examination. It is claimed by laryngoscopists that a careful examination of the larynx by reflected light will enable you, in cases of tuberculosis, to make a positive diagnosis of the trouble some time before the physical signs of the lungs are such as to give the key-note as to the nature of the invading disease. It is well known that repeatedly the ravages of the disease are such that great destruction of the laryngeal apparatus takes place before the malady is developed in the lungs.

Cough is one of the most constant and persistent of the early signs of the oncoming pulmonary consumption; it is usually found to have existed for months and years previous to the detection of structural changes in the lungs; its character varies; usually of a dry, hacking, irritative nature, yet it may frequently have a loud barking or ringing quality, or it may simply be, as the patient expresses it, "an occasional desire to clear the throat."

* Reynolds' System of Medicine, vol. 2, p. 125.

Many are troubled so little that they deny, in a general way, the presence of a cough, but by careful and judicious questions you will invariably find it to exist. Occasionally we come across cases in which *chest pains* have existed for a period ranging from a few months to a few years previous to the development in the lungs of abnormal physical signs. They differ greatly, and are usually found associated with the lung opposite to the one that is afterwards affected. The pains are probably due to circumscribed spots of local pleuritis too small to be detected by the ear. The pains are dull in character, starting in the front part of the chest and extending to one or both shoulder blades. On deep inspiration they become very sharp. Pains of the same character are frequently complained of in the muscles of the neck, shoulders and chest; at times there is simply an uneasy feeling, a feeling of tightness in the upper portion of the lungs. The pains become more marked as the disease progresses. According to some authorities, *pulmonary hæmorrhage* is not an infrequent prodromic symptom of consumption. The *pulse* often shows increased frequency and want of tone; alone no special importance can be attached to the character of the pulse, but when taken into consideration with other symptoms of phthisis we should not fail to recognize its import. In cases of an inflammatory character, which run their course in a comparatively short time, the pulse will furnish undoubted evidence (in connection with other signs) of the oncoming malady, the physical signs still being absent.

In the prodromic stages the *temperature* is, as a rule, heightened, remaining so for a longer or shorter period; there will be times when the temperature will return to normal, and remain so till some change in the weather, or unusual exposure, starts up anew all the old symptoms in an aggravated form. The higher and more continuous the temperature the shorter the course of the disease and *vice versa*. No one of the above prodromic indications taken alone is of any value; it is necessary to take them all together, and even when there is a known predisposition to pulmonary phthisis, in the absence of physical signs, an approximate diagnosis only can be made. The most important symptoms in an early diagnosis are hæmoptysis, loss of flesh, shortness of breath and pyrexia; along with these, if we take into considera-

tion certain anatomical peculiarities which may exist, they will aid greatly in arriving at a diagnosis, such as clubbing, furrows, or brittleness of the nails; the teeth, especially the upper incisors, decay rapidly; there is a large amount of hair on the scalp; "in people peculiarly liable to consumption, the upper maxillary and nasal bones have an exaggerated tendency to one or other side. The head and neck are not well set up, the neck leaning forward and sunk between the shoulders. The hands are either exquisitely fine or unduly large. The thorax is small, or the body generally diminutive for the age."

PULMONARY PHTHISIS.—There are now three forms of pulmonary consumption admitted to exist: *caseous phthisis, tubercular phthisis* and *fibroid phthisis,** all of which tend to produce similar results, viz.: consolidation, followed by destruction of the lung substance, associated with wasting of the blood and the tissues of the body; the symptoms of each form, however, present numerous differences, and for the sake of clearness and convenience I will take up each variety separately and treat the symptoms accordingly.

CASEOUS PHTHISIS.—This form presents three types of cases, which, in order of frequency, are the chronic, sub-acute, and acute or phthisis florida. This latter variety should not be confounded with acute miliary tuberculosis, which is a febrile affection due to the deposit generally through the body of the gray tubercle-granule, and is a constitutional, not a local disease.

The *chronic variety* comes on so insidiously that it is impossible to tell with certainty when the first symptoms presented themselves. There is a history of repeated colds of gradually increasing severity. Each severe cold is accompanied by chilliness, some fever, pain in chest, loss of appetite, and persistent cough; soon expectoration of muco-pus is developed; the expectoration at times may be blood-streaked, or a mouthful or two of coagulated blood may be brought up, or there may be an active pulmonary hæmorrhage. After one of these attacks it is found that instead of the cold getting better, the cough and expectoration increase in severity and persistency; that there is a daily morning chilliness, with an evening rise of temperature, with a hectic flush, an accelerated pulse, and at times

*As given by Bartholow.

some sweating during the night; the appetite becomes poor, the digestion feeble, and there is a considerable loss of flesh; there is great weakness, and a feeling of fatigue or of exhaustion on slight exertion; if a female, the menstrual flow becomes scanty or is absent. Well marked physical signs are now developed, and as they progress the severity of the other symptoms become greatly increased till at last the patient succumbs to the great drain upon the vital forces.

Subacute Variety.—In this class of cases the onset is not so gradual; there is a similar history of a severe cold (a catarrhal pneumonia), often in an apparently healthy, robust individual, with chest pains, pyrexia, a troublesome cough, and an abundant expectoration. The patient is usually confined to bed for a week or two, when some improvement takes place slowly and the patient gets about. However, a number of the symptoms continue and gradually grow worse; there is considerable pyrexia, especially at night, accompanied with much sweating, pains in chest, a persistent cough with expectoration which consists at first of frothy mucus, then of muco-pus; the appetite is poor, emaciation goes on, and the strength decreases; at this stage of the disease, in a number of cases, there is a period of comparative repose, all the symptoms appearing less severe; the cough, fever, sweats and appetite all improve, there is a gain in flesh; but an examination will reveal no improvement for the better in the physical signs. In fact it is merely a lull before the onset of more dangerous symptoms. This interval of repose usually precedes the process of softening. The state of quiescence may last for a few weeks or it may extend into many months, when the symptoms all start up again with renewed vigor and in a few months there is a marked decline in strength, flesh and activity.

In the *acute variety*—galloping consumption—phthisis florida, it is one continuous advancement with no remission of symptoms, or severity of the symptoms. It runs its course in a few weeks. It begins as a catarrhal pneumonia, involving the whole of one or part of both lungs. It commences abruptly with chilliness, very high fever, which during the course of the disease frequently reaches 104 or 105° Fahr., or even higher (showing the immense extent of deposit that is undergoing softening and extrusion), there

are considerable remissions with profuse and exhausting night sweats, with intense prostration and adynamia; the emaciation is marked and the appetite wholly wanting, the breathing is very hurried, dyspnœa, cough with profuse purulent expectoration which is often streaked with blood, or is blood. These symptoms persist and increase in violence, and in a short time the case necessarily terminates fatally.

Tubercular Phthisis.—The hereditary type of the disease usually comes under this division. The peculiar consumptive constitution is, as a rule, associated with tubercular phthisis; it is especially noticeable in youths and young adults. The general features of this constitution are as follows: The patients are usually tall and rather thin, the neck is long and small, the chest flat and narrow; there is but slight expansion of the thoracic walls upon ordinary inspiration, the muscles are small and weak, the head and neck are not well set up, they lean forward, the eyes are large and bright, the sclerotic glistening, the eyelashes are long, sweeping the thin transparent skin of the cheeks, the hair is fine, silky and quite abundant, in females growing to a great length; the skin is thin, complexion clear, the surface veins are distinctly visible, the color of the patient's face changes quickly and frequently, the fingers are long and tapering, their extremities being club-shaped and incurved. The patients are impressionable, very active but easily fatigued. The dispositions vary; while some are of the nervous, quick, irritable order, others are more phlegmatic, being slow of speech and motion, their complexion being dark with thick muddy skins. Other symptoms peculiar to this constitution have already been described under prodromic symptoms, and they will not again be referred to. If the mouth of the patient be examined, there will often be found a red line along the margin of the gums; also, will be noticed, transverse cracking of the teeth; these symptoms, when taken with others, are strongly indicative of oncoming tuberculosis.

A large number of cases of tubercular phthisis begin either by loss of appetite, indigestion, decline in weight, etc., without any physical signs, or an attack of hæmoptysis may be the first symptom. Usually, however, the onset of the disease is characterized by a short dry cough, which is rather more troublesome at night,

preventing sleep; some shortness of breath, especially noticeable on exertion; pains in chest and sides, either wandering or fixed; they seem generally to be either pleuritic or muscular, the former being of the sharp lancinating character, while the latter are dull and heavy, often owing their origin to the cough. Increased number of respirations, especially towards evening. Some nocturnal perspiration, confined at first to the neck and face. The action of the heart is excitable, and is accelerated by slight causes from the very beginning; the pulse is soft and compressible. As a rule, in the beginning the bowels are constipated, but diarrhœa now sets in. The appetite is poor or wanting, and the patient loses flesh and strength. About this time the laryngeal symptoms begin to manifest themselves; the voice begins to change and frequently bronchial hæmorrhage appears, etc. The pyrexia is now well marked; usually consisting of morning remissions with evening exacerbations terminating in a sweat—the *hectic fever*. The type may be double quotidian, the first paroxysm in the morning, the second at night; the temperature ranges from 98° to 102° Fahr. As the case progresses all the symptoms become greatly aggravated. The appetite is almost gone; there is thirst; dyspeptic symptoms are often complained of. Not unfrequently the mouth, tongue, and throat are red and irritable. This is accompanied by signs of sub-acute gastritis. The tongue is more or less furred. The stomach, in some cases, is very irritable, retching and vomiting being excited when anything is taken. In some cases the breath has a very peculiar odor. At the close aphthæ are present; diarrhœa increases, and is very difficult to restrain. Owing to ulceration of the epiglottis swallowing becomes difficult, and if particles of food or drink happen to drop into the glottis they give rise to severe paroxysms of cough and intense suffocating attacks. The *cough*, which at first was dry, hacking, and irritating, now comes in severe paroxysms; is painful and of a hoarse quality; worse on lying down at night, after sleep and after meals. During severe spells of coughing, especially when occurring soon after eating, the straining efforts to dislodge the sputa often excites vomiting.

Expectoration.—If not before present now becomes an important symptom. The character and amount of the sputa alter very

greatly in the course of the case; consisting at first of merely clear mucus, which is often dislodged only with great difficulty, or sometimes small opaque pellets are discharged; subsequently the sputa become purulent or muco-purulent, greenish or greenish yellow. The masses are opaque, irregular, airless, sinking in water, and when discharged on to a flat surface spread out in the form of a coin, hence are called "nummulated." When there are complications of a pneumonic character the sputa will have a grayish, vitreous, adhesive nature; they may also present a slightly rusty color from admixture of blood, or it may be simply blood-streaked. The striated appearance of the sputa, which at one time was supposed to have so much significance, is now known to be due simply to the changes of a degenerative kind, due to retention in the lungs. The sputa often have an unpleasant odor, and in some exceptional cases they may be extremely offensive. In cases where large cavities exist the expectoration is nothing more than pus. When patients with large cavities lie in a position which allows an accumulation to take place, the expectoration, for the time being, ceases, but as soon as the position is changed a stream of pus is discharged. The most important element in the sputa is the presence of elastic fibres of the pulmonary tissue. The detection of the bacillus tuberculosis in the sputa is of importance as confirmative evidence of the existence of tuberculosis. Frequently calcareous granules are found in the sputa. Sugar may often be detected chemically.

Cases have been reported in which, during the whole course of their illness, there was never any expectoration; there is usually no hæmoptysis, and scarcely any cough. The absence of sputa is not a favorable sign in this form of the disease.

Hæmoptysis.—Is a symptom of consumption, and one that may occur at any period. Sometimes the patient is forewarned of the oncoming of hæmorrhage by a feeling of warmth in the chest, excited action of the heart, oppression of breathing and a sweetish and saltish taste in the mouth; but as a rule the taste and sight of the blood are the first indications the patient has. The hæmorrhage varies greatly; the sputa may simply be streaked with blood (this condition has already been described), or the quantity of blood discharged may be sufficient to prove immediately fatal, but death,

due directly to hæmoptysis, rarely occurs in phthisis. The blood discharged ranges from a couple of drachms to several pounds; it is bright colored, more or less aerated, and comes up with coughing, except in very severe cases, when it gushes in torrents from both mouth and nose. Frequently a large quantity of the blood is swallowed, entering the stomach, where it is acted upon by the gastric juice, and when subsequently it is vomited it has the appearance of hæmatemesis. After the hæmorrhage has been arrested, for some days small sized blackish clots are expectorated.

The hæmorrhage is frequently brought on by violent paroxysms of coughing, rupturing vessels which are very much weakened by the erosion which takes place in the process of destruction which ends in the formation of a cavity, or the rupture is due to the prolonged and intense strain which the vessels have undergone, owing to the occlusion of so many other vessels, particularly those of the apex, by the mass of tubercular and other deposit. Many authorities, especially followers of the German school under the leadership of Niemeyer, say that "capillary hæmorrhage, either bronchial or pulmonary, is the cause of tuberculosis." Clinically, we admit that hæmoptysis is the initiatory symptom of phthisis to which the attention of the medical attendant may be called, but on close questioning, we will almost invariably find that for weeks and months previously the patient has been gradually losing flesh, has felt unusually weak; that there have been suspicious febrile symptoms, slight cough, etc. Hæmoptysis is due to something already wrong in the lungs, be it tubercle or not; if not to tubercle, it is harmless, and probably due to cardiac causes, or to some trouble of the general vascular system. When the blood-taste is experienced in the mouth, a careful examination should be made to see if it does not come from the gums or posterior nares. A pulmonary hæmorrhage may also be due to vicarious menstrual flow, or to sudden arrest of hæmorrhoidal bleeding. *Pyrexia* is a very important symptom, it occurs not only during the period of pulmonary consolidation but also during the process of softening; during the former period the pyrexia is usually much more continuous than in the latter, in which there are marked daily variations in the temperature, increasing considerably in the evenings; its character through this stage of the disease is of the *hectic type.*

The temperature is superior to either physical signs or other general symtoms, as a gauge to the activity of the tuberculosis. Most phthisical patients, some time during the course of the disease, and especially during the latter stages, complain of *night sweats*. They frequently come on as soon as the patient falls asleep. In other cases they do not set in till towards morning; at times they may be so excessive as to saturate the garments and bed-clothes. When they are so severe they cause great distress and exhaustion. Sweating from slight exertion is also noticed. During this stage of the disease the *emaciation* increases greatly, till in some cases the patient appears like a skeleton encased in a tightly drawn skin. The extent of the loss of flesh should be determined by frequent weighing. This wasting of flesh is more noticeable about the body and limbs, and particularly the chest, than in the face. *Anæmia* is now marked, and *œdema* of the legs may set in from this cause. The patients complain greatly of *debility* and it increases until they are absolutely helpless and exhausted. The *pulse* is increased in frequency and tends to be quick, sharp, small, and wanting in tone. The *urine* is more or less febrile in the early stages, and contains excess of the products of tissue destruction; finally it becomes watery and deficient in solids; albumen or sugar may be present. The disease may progress steadily, either rapidly or gradually, from bad to worse, but, as is well-known, phthisis, as a rule, does not advance by continuous progress, but by a series of successive invasions, separated by intervals of improvement followed by exacerbations.

Fibroid Phthisis.—This form of consumption is a disease of matured life, and is extremely rare in patients of less than thirty years. It is the most chronic form and its early history is that of bronchial catarrh; it being years before the lungs are attacked. A persistent, not very troublesome, dry cough exists for months, then there is slight expectoration, consisting simply of mucus. The appetite and digestion are good, the bowels are regular and there is no perceptible alteration in the weight and strength. During the cold, wet, changeable seasons of the year, the symptoms increase in severity, the cough is more troublesome, the expectoration is freer, and has the appearance of muco-pus. During the warm months the symptoms all ameliorate, only to be again

renewed with gradually increasing severity during the coming winter.

The improvement during summer, year by year, gradually grows less till at last there is no change whatever for the better. Fever comes on towards evening; the temperature ranging above 100° Fahr. The appetite becomes poor, the digestion is affected. The cough is harassing and prevents sleep; the expectoration now becomes profuse and entirely purulent, with frequent vomiting on attempting to clear the throat. There is loss of flesh. Chilliness, followed by sweating during the night now occurs. Dyspnœa. Pulse is small and weak; the temperature now begins to ascend, getting as high as 102°, but never reaching the degree found in the other more acute varieties. At this period we frequently find one or more hæmorrhages. When tuberculosis sets in we find increased dyspnœa; rise of temperature; alteration in voice; diarrhœa; increased frequency of the pulse, but a want of tone. Owing to the compression of vessels in the lungs from various causes we have dilatation of the right heart, with stasis of the venous system, followed by congestion of the liver and kidneys, œdema of the feet and ankles; then swelling of the legs and scrotum, followed by ascites.

Physical Signs.—The physical signs of the three forms of phthisis are all more or less intimately connected, and as there are no essential points of difference, they will be considered together. Usually the morbid signs are present in different stages over various parts of the chest. In chronic phthisis, however, they tend to be localized, the rule being that they are particularly noticed over one or both "apices," especially in front, although not to the same degree on both sides; but this is not always the case. To examine the lungs it is best to place the patient in a standing position, taking care that the two sides of the body are symmetrically poised; the chest being completely uncovered, both front and back, thus avoiding any errors that might be made from the noise of the clothing; then proceed to inspect, measure, percuss, auscultate, and so on. The recognition of abnormal physical signs will be greatly aided by comparing the signs elicited from one region of the chest with those of another, especially of one side with the other.

Inspection and *mensuration* will reveal whether the shape or size of the thorax is abnormal. It may be congenitally small, being either alar or flattened. In most cases, however, it is originally well formed. In the beginning there may be no depression—in fact bulging to a slight degree may exist; later the tendency is for the chest to sink in at some part, especially in the supra and infra-clavicular regions. As the disease progresses the clavicles become more prominent, the mammary and infra-mammary regions become flattened; when one apex is considerably involved there is often a lowering of the shoulder. It is noticed on inspiration that the expansion of the upper part of the chest on the diseased side is deficient. There is marked diminution in the size of the chest on mensuration.

Percussion.—All shades of dullness exist, from that of a slight degree, at the summit of the chest, usually on one side (more often on the left), in front or behind; to absolute flatness with more or less resistance. This is when the tissue is entirely without air. It is to be remembered that occasionally in health slight dullness on the right side at the apex may exist. Any dullness, however slight at the *left* apex is always abnormal. There may be vesiculo-tympanitic resonance at the apex from secondary lobular emphysema.

On *auscultation* the sounds audible will present great variety; the vesicular murmur will be unimpaired in those parts free from disease, or, as is often the case, it will be of a puerile character. Respiration is weakened or bronchial or broncho-vesicular, occasionally jerking or cogged wheel, with prolonged expiration. Flint claims "that an abnormal increase of the bronchial whisper has often, in his experience, been of much service as one of the signs of incipient phthisis," but "it is essential to take into account the normal points of disparity between the two sides of the chest at the summit."

Adventitious sounds or *rales.* The first of these audible, are fine, dry, crackling sounds heard only over a circumscribed space at the summit of the chest, and usually requires deep and full inspirations to develop them. If this râle is temporary it is of no importance.

As the inflammation involves other structures the secretion be-

comes more abundant, and râles of more significance are developed; as fine and coarse bubbling râles, these are from softened deposit, or from accompanying circumscribed bronchitis, they are more marked in the morning before expectoration. We also have dry râles, sibilent and sonorous, friction sounds, etc. There is bronchophony, increased vocal resonance, whispering bronchophony and occasionally pectoriloquy.

Palpation shows increased vocal fremitus.

Besides these signs, in some cases, we may notice that the heart is drawn up considerably and uncovered by the lung; the impulse is extensive and strong, and the sounds are loud; in very rare cases the heart may be lowered or displaced laterally.

Dr. F. F. Roberts claims that a *subclavian murmur* is not uncommon, especially on the left side, due to pressure by thickened pleura on the subclavian artery. If the lung contracts greatly the diaphragm and liver or stomach may be drawn up.

Signs of cavities vary considerably according to the size, shape, number, and situation of the cavities, also according to the state of the walls of the vomicæ, the condition of the surrounding tissue and other circumstances. At times cavities are found at post-mortems, where, during life, the physical signs have been negative or very doubtful. Ordinarily, in the stage of phthisis in which are found cavities, on inspection, it is seen that there is an extraordinary prominence of the clavicles from the falling in of the upper part of the lungs; and that the expansion on inspiration is deficient. On measurement the chest is found greatly diminished in size.

Percussion will reveal tympanitic resonance within circumscribed spaces; occasionally the note may be tubular, cracked-metal, or rarely amphoric. A rise in pitch on opening the mouth is considered a characteristic sign of cavity. When the cavity is full of morbid products, as in the morning before copious expectoration, dullness over the area, corresponding more or less to the size of the cavity, will be found. On auscultation, cavernous respiration will be present, especially after an abundant expectoration; the sound will be absent if the cavity is filled with liquid or if the tubes leading to it are obstructed; and if they are quite small and deep-seated, being beneath solidified lung, the cavernous

respiration will be drowned out or masked by the neighboring loud bronchial respiration. There is often a combination of cavernous and bronchial breathing—broncho-cavernous respiration. On rare occasions amphoric respiration is found. "Increased vocal resonance, as distinct from bronchophony, is also a cavernous sign." * Not uncommonly there is cavernous pectoriloquy and whispering pectoriloquy. When there is amphoric respiration, the amphoric voice will be found associated. The râles are gurgling in character; very rarely metallic tinkling or amphoric echo. The heart-sounds are sometimes much intensified by transmission through cavities. At times the cardiac action occasionally elicits ronchi in neighboring cavities. "It is said that a *murmur* may be heard in rare instances over a vomica, due to an aneurismal dilatation involving a branch of the pulmonary artery."

The special signs and symptoms indicating the existence of *basic* cavities in the tubercular state are as follows: The patients complain of pain and other sensations through the base of the chest from front to back; at times they complain of a temporary increase of local pain of a bursting or throbbing character, with cessation of expectoration; relieved after one or two days by the sudden return of profuse discharge, occasionally with some hæmoptysis; there is local tenderness; vomiting is liable to occur at the end of paroxysms of coughing. The cough is of a peculiar character; it may be either convulsive, when it is very exhausting, or it may be very much less severe, expectoration being easy, or it may be extremely loud, distressing and comparatively dry. In severe cases the temperature is of a decided remittent type, fluctuating between 99° and 103.5° Fahr. with early morning remission of 3° or 4° with night sweats, diarrhœa, emaciation, etc. The cough is readily induced by stooping; it is observed in some instances that posture may provoke expectoration with little or no cough, the patient stating that when he stoops or occupies certain other attitudes, "the matter rises into the throat," or even "pours from the mouth."

The amount of expectoration is very large, being coughed up by mouthfuls; during the night as much as half a pint may be raised. The sputa are foul both to taste and smell; it is then of a

* Flint.

dirty gray or yellowish-gray color, occasionally tainted or streaked with blood with an acid reaction.

Physical Signs.—Inspection reveals local depression of the parieties and impairment of expansion movements similar to that seen at the apex; the heart may be displaced towards the seat of the disease.

Percussion chiefly shows dullness or flatness and increased resistance over a definite area with possibly a hollow, tubular, or cracked metal character. The area of want of resonance is larger than the excavation, and as a rule is sharply defined both superiorly and laterally. Vocal fremitus is found to be present over the outlying portion or circumference, while at the extreme base, it is totally absent. Auscultation reveals what Dr. J. Mitchell Bruce terms "an indefinite blowing" (exaggerated) "respiration" mixed with various râles as the subcrepitant and bubbling. Occasionally no sound can be elicited over the dull area, but on directing the patient to cough the whole phenomena are transformed. The "indefinite" respiration is changed to a loud, purely blowing sound, the quality being either tubular or cavernous; expiration is greatly prolonged, ending in a whistling or wailing sound. The adventitious sounds are well marked, *i. e.* liquid bubbling or gurgling; on coughing they become more distinct. Both in phonic and in aphonic or whispered vocalization the resonance is so loud and distinct as to be called pectoriloquous. On moving the stethoscope either upwards or laterally we suddenly come upon respiratory sounds of more vesicular quality, whilst a small crepitus replaces the bubbling. It is remarkable how sudden the transition is from one set of signs to the other.

Dr. Bruce, of London, in speaking of the signs on auscultation, says: "On listening over the healthy side of the chest, at a spot corresponding symmetrically with the seat of cavity, the observer may be surprised to find that the respiratory sounds, especially the expiratory, are here also of a somewhat cavernous, or at least tubular character. I have little doubt that the sounds over the opposite base is an echo." He has observed it to continue unchanged for months, and on post-mortem found no local disease whatever, to account for it. It is found to be more distinct at some distance from the spine than close to it, a feature which he considers to be in favor of its being an echo.

COMPLICATIONS.—Those most frequently met with in the course of pulmonary phthisis are affections of the larynx and trachea, especially ulceration; bronchitis; pneumonia (catarrhal); or pleurisy; perforation of the pleura with consequent pneumothorax; enlargement of the external absorbent glands, or of those of the chest and abdomen; tubercular meningitis or tubercle in the brain; tubercular peritonitis; ulceration of the intestines, especially the ilium; fatty or amyloid liver; fistula in ano; Bright's disease in its various forms; diabetes, pyelitis, and thrombosis of the veins of the leg.

COURSE, DURATION AND TERMINATION.—The course and duration of phthisis are subject to much variety, and are greatly influenced by its form. *Acute caseous*, or phthisis florida—galloping consumption—as a rule, runs an uninterrupted course of a few months; in rare cases where it does intermit it assumes a more chronic course. The history of *chronic caseous phthisis* shows that it is much slower; there are repeated bronchial attacks with gradually increasing consolidation; between the attacks the patient greatly improves, but it is noticed after each fresh attack the subsequent improvement is less, the tendency is towards decline. It is during these intervals that by careful and judicious management the process of destruction may be arrested. If such a happy result can be brought about, absorption of some of the caseous matter takes place while the rest is extruded, cicatricial tissue is supplied in place of the destroyed structure; this is followed by retraction of the chest walls, and the patient may live three, four or five years, or an ordinary lifetime. In the cases which do not tend to recovery, the deposits are greatly increased, then follows hæmorrhage, fever, and emaciation, all of which become more prominent and distressing, till death relieves the patient. The duration of such cases is about two years. The *tubercular* form may run a quick course, lasting about a year, or the symptoms may develop more slowly, the patient lasting for two or more years. The duration depends greatly upon the extension of the tuberculosis to the larynx, intestinal canal, etc.; and on the severity of the other symptoms, as the pyrexia, hæmorrhages, loss of flesh, etc. As long as the deposit of tubercles is confined to the lungs there is a possibility of recovery, in the same manner as in the caseous variety.

The duration of the *fibroid* form is the longest of any variety. It lasts for several years, in fact for an ordinary life time, and then proves fatal at last. If the changes are not too extensive, it offers the best opportunity for a cure. The course is slow; and like the other forms, especially the chronic, it is interrupted by shorter or longer periods of quiescence, during which, although the lung symptoms may persist, the fever and constitutional symptoms are in abeyance, and the general health and strength of the patient is greatly improved. When the connective tissue is invaded and tuberculosis is developed, it advances more rapidly; the larynx, intestinal canal and other organs become involved; the temperature, emaciation, and all the ordinary train of symptoms increase in severity. It is often quite astonishing what a length of time the patient will live when apparently in a moribund condition. Death usually takes place from gradual asthenia and fever, or from some of the complications of phthisis; or, as is sometimes the case, from hæmorrhage.

Some authorities assert that there is a self-limited duration of pulmonary phthisis. Dr. Austin Flint,* in speaking on the subject, submits the following general proposition: "Pulmonary phthisis in a certain proportion of cases has a self-limited duration, the disease ceasing to exist after more or less progress of the local affection; all symptoms referable to the lungs disappearing, and recovery, as regards the general health, being complete. The disease is also self-limited in a certain proportion of cases in which lesions remain, giving rise to more or less cough and expectoration, the persistence of these lesions not being incompatible with good general health and long duration of life."

Diagnosis.—When the disease is well advanced the abnormal physical signs are usually quite conspicuous, and the recognition of pulmonary consumption presents no difficulty. Besides the mere recognition, it is desirable to obtain, if possible, a correct knowledge of its seat and extent; its stages in different parts of the lungs, and its nature and origin. This can only be acquired by a careful consideration of the history and presenting symptoms of the cases, associated with a thorough, systematic physical examination. I have already reviewed the nature of the evidence upon

* London Lancet, Amer. reprint, Nov. 1882, p. 353.

which the diagnosis of incipient phthisis is to be based. I have shown that where the physical signs are negative it rests solely upon the prodromic symptoms and at best the diagnosis is only approximate. I will, therefore, not refer to them again, but will call your attention to a hasty review of the differential points of two or three conditions which in their early symptoms simulate incipient consumption, following with the points of difference between caseous, tubercular and fibroid phthisis.

Atonic dyspepsia, which is sometimes confounded with incipient phthisis, can be distinguished by remembering the natural differences in the sonority and respiration of the right and left infra-clavicular region, and by the fact that there is no point of irritation about the air passages to give rise to such symptoms as the patient suffers from. Frequently patients are troubled with cough and fever, and during a paroxysm they spit blood; at once their minds are naturally tormented by anxiety and fear lest they are consumptive, and as such cases are by no means rare, and occur quite independently of lung disease, a diagnosis as to whether the symptom comes from the lungs, the throat or the stomach is particularly desirable, as it will often allay an unnecessary alarm upon the part of the patient. When from the throat, it is caused by at least two conditions: one is a congested or inflammatory condition of the mucous membrane of the fauces, which leads to an increased secretion of viscid mucus; this causes cough and expectoration of mucus and saliva, which is occasionally tinged with or even contains (apparently) an alarming quantity of blood. The other condition is met with in anæmic young women; the throat appears pale; there is no sign of congestion, but from time to time, especially during the menstrual periods, it exudes blood in small quantities. There is a feature of this character of blood-spitting which is of great diagnostic value, viz: the hæmorrhage in the great majority of cases occurs early in the morning on waking. Catarrhal conditions of the stomach may give rise to hæmorrhage; with care this can be easily recognized. In malarial regions hectic fever may be confounded with intermittent, the latter usually being attended with a cough; a careful review of the symptoms will at once decide the question. In phthisis the fever has been preceded by a cough, loss of flesh and strength;

whereas, in intermittent fever, these symptoms have followed the fever. The enlarged spleen is not found in phthisis as in intermittents. In phthisis there are abnormal lung signs; in malaria, as a rulè, none. Intermittent fever is checked by large doses of quinine; hectic fever is not.

The distinguishing points of difference between the *caseous* and *tubercular* forms of phthisis are as follows:

CASEOUS.	TUBERCULAR.
It is not hereditary. (Occurs in the scrofulous.)	Distinctly hereditary.
It occurs from youth to middle age.	It attacks all ages.
It results from acute inflammation of the bronchi and lungs.	It comes on insidiously with catarrh of the bronchi and lungs.
Hæmorrhage not very frequent.	Hæmorrhage frequent.
The lesion is apt to be on one side.	The lesion, as a rule, affects both sides.
The deposit gives rise to marked physical signs.	The deposit being disseminated, the physical signs are frequently not very prominent.
Laryngeal symptoms not very prominent.	Laryngeal symptoms quite prominent.
Progress not very rapid.	Progress is rapid.
Mortality is not as great as in the tubercular form.	Mortality great.

Fibroid phthisis is distinguished by its slow progress, by the long lasting bronchial trouble before lung involvement, by the expectoration being purulent till quite late in the disease, when it contains fibrous tissue, and by "bronchial dilatation long before cavities by excavation form." *

Prognosis.—All observers of much experience agree that the prognosis in cases of phthisis is to be based chiefly upon two ruling elements. The first is the general condition of the patient; the second the intercurrent congestions and inflammations; the local symptoms and signs holding a secondary place in the delicate consideration of the chances for a cure. There is now ample evidence that phthisis may in many cases undergo a complete cure, while in a large majority its progress may be greatly delayed by appropriate treatment and life rendered fairly comfortable. Instead of taking each individual symptom and examining its probable influence upon the ultimate result of the disease, I will, keeping in view the general condition of the patient, investigate a few of the more prominent symptoms, as the gastro-intestinal, the laryngeal, hæmoptysis associated with pyrexia, emaciation and nervous excitability

* Bartholow, Practice of Medicine, article Phthisis.

or erethism (of Jaccoud), and endeavor to ascertain their true value in establishing a prognosis, paying special attention to the indications favoring a cure.

Gastro-intestinal symptoms: Their seriousness is in direct relationship with their precocity and persistency. These disorders increase the drain on the vital forces and they hinder reparative alimentation, which is so essential to a cure, and if this period of spoliation prolongs itself the advantages that have been laboriously gained by a judicious treatment of several months can be easily lost in a few weeks, and when once again the control of the situation is secured you will find the disease proper far behind the starting point. When the digestive troubles assume a permanent character, and when the clinical features are such as to compel us to connect the diarrhœa with intestinal ulceration, "no matter what the state of the pulmonary lesions may then be, all hope is lost, and you may safely prognose that the chances for a cure are at an end." *

The situation is not less unfavorable when serious and persistent laryngeal symptoms develop. Observation has demonstrated that chronic laryngitis of phthisis, whatever its nature may be, aggravates the state of consumption, whether it is already present or is precipitated later. The earlier the appearance of the symptoms the more redoubtable they become, for they can by themselves alone, hasten the deterioration of the general state, and thus rob the patient of the relatively favorable chances which the initial period of the pulmonary lesions ordinarily present. This is especially true of the ulcerous variety.

"In regards to cure, *hæmoptyses* have not the constant and univocal significance attributed to them; of course, in so speaking, it is not intended to include the alarming and abundant hæmorrhages which, at any time, and especially during the period of excavation, may rudely put an end to the days of the patient; but the medium hæmoptyses, which appear at the outset or during the course of the disease before ulceration, is not sufficient reason to make us abandon the idea of cure. † During the initial period, when the danger rests particularly on the congestive condition

* Jaccoud Pathology. Free translation.

† Jaccoud, of Paris.

which provokes the extension of the lesions, the hæmorrhages can become really critical, and dispel for a more or less length of time a threatening inflammation. In such cases, far from being a bad sign, it is on the contrary a salutary phenomenon." When the hæmoptysis is produced outside of these determine conditions, it is always in itself an alarming symptom, but the "judgment to be formed in point of view of the final evolution of the disease, remains variable, subordinated as it is to the multiple elements of appreciation; the frequency of the hæmorrhage, its effects on the pre-existing lesions, results which can be rigorously measured by an examination of the chest before and after its occurrence; the relation between the number, the quantity of blood lost, and the state of the organism which suffers them." Such are the most important of these individually variable data. It is besides necessary to take into account, with equal solicitude, the fever. "The hæmoptysis, occurring in a consumptive not febrifacient, may be apyretic, and by this sole fact its seriousness is less, all things being equal; it can, under the same circumstance, be the occasion of a febrile movement, which is more or less intense, but which ends when the hæmoptoic process is completed, in such a way that after this incident the patient goes back to the apyretic state, in which he was before; this is then already a very alarming form, especially if the hæmorrhages repeat themselves with the same characters, but however this is not yet the indication of a definite aggravation and of an absolute incurability. The cure is seriously compromised when the febrile movement created by the hæmoptysis survives it and becomes persistent. Whatever the type of this fever may be, it modifies seriously the condition of the patient, because, as long as it lasts, all hope of improvement must be abandoned. Particularly formidable is the hæmoptysis occurring at the beginning of pneumonic tuberculosis; when it is both slight and of short duration, it has no meaning regarding the ulterior course of the disease; but at times the hæmoptysis, imitative of tubercular pneumonia, persists imperturbable for several days with an alarming abundance; it constitutes then the hæmorrhagic form of the disease to which it imposes the most unfavorable prognosis; not only an immediate fatal issue is to be feared, but if the patient survives there is nothing to be expected regarding the

arrest or reparation of the pulmonary lesions. Occasionally, however, a favorable evolution may be observed in spite of the hæmorrhagic outset, but cases of this kind are very rare."

In all cases where emaciation exists, the first indication of a cure is an increase in the weight of the patient (owing to the cessation of the emaciation), therefore *emaciation* becomes an important symptom in the consideration of the chances for a cure. If it, the emaciation, is transient and is due to an acute complication, febrile condition or momentary disturbance of alimentation, it will not, of itself, be a contra-indication of cure; it will, however, always cause a delay which is hurtful; but if it begins early in the case and persists, increasing at periods when the disease, judging from other symptoms (local and general), seems stationary, it is truly a consumptive wasting which excludes all idea of cure.

Fever is a symptom which has great weight in the making of a prognosis. As long as fever is present amelioration is impossible. In chronic cases the precocity; in pneumonic the duration of the fever governs the situation. There is another symptomatic peculiarity derived from the individuality of the patient, which although of less importance than fever, should, nevertheless, receive serious attention, viz.: the state of nervo-vascular excitability called *erethism;* this is manifested by cardiac excitability, with more or less palpitation, or it may be a general condition. It occasionally provokes or keeps up phenomena, which are by themselves serious, such as fever and hæmoptysis; frequently it adds to the constitutional wear and tear inherent to the disease. While such a condition of the system does not necessarily render the case, as regards an ultimate cure, hopeless, nevertheless it is a serious complication, and one not easily got rid of. Equally important is the consideration of the variable influence of cavernous formation on the curative process: basic phthisis, as a rule, being unfavorable. All these symptoms or conditions have their value; they are, however, merely fragments of a superstructure, and unless based upon the foundation elements (already mentioned) of a prognosis, will prove of little service to the physician in arriving at a definite conclusion.

From a pathological standpoint the recoverable cases are those

which after inflammatory or tubercular or catarrhal attacks, remain with the alveolar wall intact. Destruction of alveoli is never recovered from; there is a collapse and thickening of that part of the lung, but there is no restitution of structure, and no vesicular breathing in that part again.

Wm. W. Van Baun, M. D.

Treatment.—In persons threatened with and predisposed to phthisis the preventive treatment becomes the most important. The patients should abandon any occupation which does not afford them plenty of fresh air and at least a moderate amount of exercise. Their clothing should be such as to protect them from any sudden variation of temperature. They should correct any habit which does not allow of free expansion of the chest; it is of vital importance that the air cells be kept open, and that they be furnished with a continuous supply of fresh and wholesome air. The moderate use of Burgher's respiration regulator will often prove of great benefit in these cases. Patients, especially those of tender years, should be directed to carry their shoulders well thrown back, and take frequently long inspirations, particularly in the open air when it is not laden with dust particles, as these might give rise to inflammation that would result in the deposit of tubercle. The night air, great fatigue, living in damp and poorly ventilated houses should be avoided. Authorities insist that a woman predisposed to phthisis should not nurse her infant. Any affection that gives rise to a drain on the vital forces should be treated and removed as quickly as possible. Finally, the selection of a proper climate for the individual should receive serious consideration. What is needed is dry air, with an evenness of temperature; it makes little difference whether it is cold or warm. All things being taken into consideration, a temperature somewhere between 65° and 75° Fahr. is the most desirable.

Hygiene.—The patient should be furnished with pleasant, agreeable surroundings; with plenty of outdoor exercise, without causing too great fatigue. Horseback riding, where it can be indulged in, is of advantage. It is claimed that working and being with cattle is beneficial; there is probably some truth connected with this statement, but it is not very often that it is practicable,

especially if the patient happens to be a refined, highly educated lady. A full, nutritious, easily digested diet, consisting plentifully of animal food, is to be recommended, but it is best not to have "great expectations" as to the advantage to be derived from shredded raw beef and hot water. Cod liver oil will assist in keeping up the animal heat, thus aiding the patient to avoid colds; its use will also emphasize all the preventive precautions. The hypophosphites, with different preparations, have proved serviceable in many cases. Johnson's fluid beef, which is very palatable (to those who like it) and nutritious, and Murdock's liquid food, are not to be lost sight of. The diet is to be varied, so as to prevent the patient tiring of any one article or special set of articles. Rock and rye, with a little glycerine, is claimed to be of service for the cough and the chest; its benefit to the stomach and brain is questionable.

Local Treatment.—Chiefly by inhalations and the use of respirators. Dr. Sinclair Coghill has invented one which can be used to advantage in fogs, dust, and in the cold west winds, which act so often as a cause of irritation. The inhalation of vapors have proved to be of value both as palliatives and curatives. The forms in most common use are solutions of iodine, carbolic acid, creosote, tar, rectified spirits, glycerine, phosphorus, etc. The regular inhalation of one of these preparations morning and night for half an hour will often relieve a great many of the troublesome symptoms, as the cough, sweats, dyspnœa and expectoration. In conjunction with the homœopathically indicated remedy, they will be of great service in curing many cases that would otherwise come to a premature death. In case the inhalations should cause too much dryness, and irritate the throat, a swallow of glycerine before using it will obviate this symptom. The writer has obtained good results from tar taken in the way described above. The spirometer may be of service if used regularly in the early stages. Certain arm and shoulder movements, on the Swedish order, practiced with a care not to prolong the exercise beyond healthy reaction, will facilitate greatly the expansive capacity of the lungs.

Climate.—In selecting a climate to which to direct your patient, there are certain health-giving factors which are to be taken

into consideration. Summed up they are about as follows: equability of temperature, purity of atmosphere, and comparative dryness. The essential factor is to have a climate which will allow the patient to be out of doors nearly all day, or of the free ventilation of the apartments when exercise is not practicable.

An atmosphere of varying electric condition, with the consequent production of ozone, purifying the air and keeping it free from septic germs is favorable.

A dry sandy or gravelly soil, which quickly absorbs and filters away the rainfall from its surface, thus keeping the air free from moisture, should be sought after.

"The poorly nourished victim of phthisis should not be banished to a land where his diet may be impoverished by the lack of fresh meats and vegetables. If he is where he can add to his fare by the products of his recreation of hunting and fishing, then will good digestion be most likely to wait on appetite."

"Agreeable society is an essential of happiness, and a preventive of depression of spirits that some consumptives are troubled with."

"It is best to keep invalids apart."

"No known land is exempt from the liability of its inhabitants to pulmonary consumption, but in this country statistics of the last two decades show that the disease progressively diminishes from our extreme northern States southward to Florida. Mortality from consumption in Florida is but 58 to the 1,000, whilst in Maine 258 to the 1,000, in Connecticut 179, Pennsylvania 142, and South Carolina 90."

Among the elevated climates we have the White Mountains and Adirondacks; these places are especially suited for the catarrhal forms of phthisis. The fibrous form is not much benefited in this region; tubercular forms are not helped any.

"In Virginia are the Blue Ridge, North and Allegheny Mountains, having plateaus with an elevation of 3,000 to 3,500 feet. Between these ranges is a part of the great Appalachian Valley, the western elevation of which is much higher than the eastern. This region affords many places of importance as health restoring localities; the mild winters and salubrious summers, together with the comparative dryness of the air makes it a valuable climate for

this disease." "In North Carolina, Asheville is a place of wide repute for consumptives. In South Carolina, Spartansburg is a healthful location, with many natural curiosities. It is an excellent resort for phthisical patients." "In the northern portion of Georgia the elevation and climatic conditions are said to be excellent; Clarksville and Clayton have some repute; Bath, Richmond county, is said to possess in a most perfect degree the conditions necessary for the cure of phthisis."

"Northern Alabama is very popular with consumptives to whom it is very beneficial."

"The climate of these southern mountain regions is said to be of most importance in the tubercular form of phthisis, and in the later stages of other forms, when the system is weak and without much reactive power."

"The low consumptive mortality of Florida exists notwithstanding the number of northern invalids who seek, too late, its healthy air, to end their days and add to the normally very low death rate. Dr. Kenworthy of Jacksonville, who has given much intelligent attention to climate in the cure of consumption, believes that the mortality from consumption among the permanent residents of Florida actually does not exceed thirty deaths to the thousand from all causes."

The climate of the Gulf Coast, in Dr. R. J. Levis' opinion, "has most of the essentials for the benefit of persons under the influence of phthisis; in winter season it is free from malarious influences; fogs are unknown, and the opportunities and inducements for an out-door life are far greater than that of the Atlantic."

Sidney Lanier, the poet, whose failing days were prolonged by a residence in Florida, says, that "the air of the Gulf Coast is milder and dryer than on the eastern shore in mid-winter; and it is to be greatly hoped that increased facilities for reaching these favorable regions will soon render them practicable to those who now find the journey too trying."

"The mean temperature for the five cold months, for a period of five years, at the United States Signal Station at Punta Rassa, about two hundred miles south of Cedar Keys and one hundred north of Cape Sable, is shown in the following table:"

	November.	December.	January.	February.	March.	Mean for five Months.
Punta Rassa,	69.4	64.6	64.8	66.1	68.8	66.7

Another table shows the maximum and minimum temperature for the same months in the years 1878 and 1879:

Punta Rassa,	November.	December.	January.	February.	March.	Mean.
Maximum,	83.7	76.2	79.3	79.1	82.6	80.7
Minimum,	47.7	42.3	46.7	47.6	49.7	46.6

Dr. R. J. Levis says he saw venison, birds and other meats remain for many days or even for weeks, hanging unprotected in the open air, free from taint, and becoming merely hard and dry, without decomposition, so pure and dry is the air.

"The Rocky mountains in Colorado is a pleasant atmosphere, neither stimulating nor soothing, but is of that pure nature which seems to sustain; the air is much dryer than that of the Adirondacks; the elevation is higher; the winters are milder, but unfavorable from the sudden changes of temperature. Denver is spoken of very highly by some, but the extremes of heat and cold are too great for these cases, especially when the disease is far advanced."

"The tropical nature of California, its general mild and genial climate may sometimes be of great service to consumptives."

Remedial Treatment.—In the selection of a remedy you are to be governed by the totality of the symptoms, careful individualization being necessary. Following will be given a list of remedies

with a few of the more prominent symptoms which have been gleaned from various sources: For further indications you are referred to any of the standard works on Materia Medica or to Brigham's work on Phthisis Pulmonalis.

Aconite.—Congestion of blood to chest, short cough, hæmoptysis.

Agaricus.—Incipient tuberculosis; tip of tongue studded with small dirty yellow aphthæ; tickling irritation in wind pipe; short breath in walking, stand still to get breath; frequent dry cough after meals; hemming and bringing up small firm lumps of phlegm without cough; rattling of phlegm worse in morning and when lying on back; sense of constriction about cardiac region, as if chest was too narrow or too full of blood.

Amm. carb.—Stitches in chest when stooping, relieved by raising the body; can not lie on left side for these stitches; dry cough at night, as if feather down in throat.

Amm. mur.—Expectoration of blood, following an itching in the throat; dry cough in morning, loose in after part of day and evening; slimy and bloody expectoration, with stitches and oppression in the chest.

Antim. tart.—Phthisis mucosa; rattling of hollow cough; worse at night with suffocation; throat full of phlegm; sweat on forehead; vomiting of food.

Apium virus.—Pains generally in left chest opposite middle of sternum; cough caused by constrictive feeling in chest and by pressure on sternum; little or no expectoration; worse lying down and on left side; a feeling of weariness in the larynx, worse in a warm room; œdema about the eyes (kali carb.); a very tired feeling.

Ars. alb.—Acute, sharp, fixed or darting pains in apex and through the upper part of right lung; rapid emaciation and pronounced hectic; tenderness and burning sensation; chill is often undeveloped.

Ars. iod.—Broncho-phthisis, pneumonic and hæmorrhagic forms, bronchial asthmatic dyspnœa; cough on lying down at night and between 3 and 5 in the morning; irritability of bowels, utter prostration, diarrhœa hurrying them out as soon as they commence to move in the morning.

Baptisia.—Hectic suppurative fever; laryngeal phthisis; profuse

expectoration of tuberculous pus; no night sweats, but like ague; loss of hopefulness so common to phthisical patients; severe constant cough; great emaciation.

Balsam Peruv.—Cheesy degeneration of the tubercles; hectic fever, slow feeble circulation.

Belladonna.—Cough at night, shortness of breathing and mucous râles. I have used this remedy to stop a dry, hard cough at night, in phthisis, with very good effect. Repeated at close intervals of five to ten minutes, a very few doses would relieve my cases and allow them to go to sleep.

Bryonia.—Patient can not expand his chest when attempting to breathe; profuse night and morning sweat.

Calc. carb.—Where calcarea symptoms precede phthisis, such as the dyspeptic condition, with profuse, too early and too long menstruation in women; during second stage constant short spasmodic cough, especially at night, with yellow expectoration in the morning; cold clammy extremities; chest intensely painful to touch.

Calc. phosph.—Later when cavities are formed; sunken in intercostal regions; cavities contain pus; breathing rapid; patient superficially reduced almost to a skeleton; night sweats. (Nitric acid complement.)

Carbo veg.—Epistaxis, worse at night and in the forenoon, followed by burning pains over the chest; sensitive to atmospheric changes; cough in hard spells, not ceasing until masses of green-yellow purulent fœtid sputa are discharged; hoarseness towards evening.

China.—From loss of fluids and loss of vitality; copious exhausting night sweats, especially on forehead, neck and chest, slightly staining the linen, not offensive, occurring the moment patient drops into a sound sleep.

Cimicifuga.—Intercurrent congestions and inflammation from exposure, with dry harassing cough; diarrhœa and night sweats.

Caust.—Chest so weak, almost impossible to get under the mucus, with other symptoms of causticum; cough relieved by a swallow of cold water; weakness of sphincter vesicæ.

Drosera.—Profuse expectoration, with gastric irritation; vomiting of food by coughing. (Mephitis when drosera fails.)

Digitalis.—Great weakness of chest, better lying; deep hollow

cough, with roughness or scraping in roof of mouth or trachea; jelly-like mucus thrown off in the evening; the heart usually sympathizes; in many respects digit. is the analogue and support of phosph.

Dulcamara.—Tough, greenish expectoration, with moderate cough; diarrhœa; great disposition to catch cold.

Ferrum met.—Epistaxis alternating with spitting of blood; fugitive pains in chest; feeling of fullness and oppression in pit of stomach; paleness of mucous membranes; flushes up easy; like a false plethora, yet a secret anæmia; expectoration purulent, frothy and blood-streaked.

Ferr. phosph.—Full round pulse; congestion; inflammation before any exudation; sputa are blood-streaked, caused by the least exertion or cold air, when congestion comes in the opposite lung.

Guaiacum.—Stitching pains; pleurisy complicating phthisis; especially in stage of softening and suppuration.

Hamamelis.—Where there is passive venous hæmorrhage from the lungs; cough and hæmoptysis, with taste of sulphur in the mouth.

Hepar sulph. calc.—Very sensitive to open air; sweats easily from exertion and turns pale; afterwards burning redness and dryness of palms of hands; spasmodic cough in paroxysms; tickling in larynx and efforts of vomiting; person with blonde hair whose muscles are soft and flabby, also those who are generally depressed and especially in the morning; a feeling of hard body in epigastrium, immediately followed by hæmoptysis.

Hydrocy. acid.—Has a dry, tickling cough in consumptives, especially if it is reflex from heart disease.

Iodium.—Stitching and burning in the chest after a dry cough; constant tickling; transparent mucus, often streaked with blood; morbid hunger, even soon after a meal, and yet constant increasing emaciation, or else total loss of appetite; morning sweat.

Kali bichrom.—Cough, with profuse yellow, stringy expectoration, and much sweating; pain, as of ulceration of larynx, causing cough at almost every inspiration. I had a patient who had these symptoms, with a feeling of stiffness in the larynx, that was also relieved by kali bich.

Kali carbonicum.—Puffy eyelids; stitches all over the chest

and in the eyes, ears, teeth and other parts of the body; lower portion of right lung affected; chilly about noon; after dinner nausea or faintishness; easily frightened, a slight touch of foot will cause them to jerk up in affright; cough with nausea and vomiting, worse 3 A. M.; constrictive pains in chest and throat; white globular sputa, which fly from mouth when coughing, also large quantities of purulent expectoration; tendency to gastric irritation; disease caused or aggravated after confinement or nursing.

Kali hydriodicum.—Stitches through sternum to back, worse while walking; suffocative cough, dry hawking, later with copious green sputa, or like soap-suds; exhausting night sweats and loose stools; excessive and rapid emaciation.

Lachesis.—Cough frequent, dry, short, sharp and harsh; fever worse in the afternoon; offensive stools; sore mouth in last stages of phthisis; difficult expectoration of offensive purulent sputa, with straining, and nausea even to vomiting; sweat around neck after first sleep; cough worse by touching the larynx, by mental emotions, damp, cold weather, changes of temperature, spirituous drinks, lying down and after sleep; sometimes hoarseness even to aphonia; anxious palpitation of heart.

Ledum.—Soreness under the sternum; cough accompanied by tearing beating pain in head, followed by bloody or greenish fœtid expectoration; suppuration of lungs, after neglected pneumonia; purulent cavernous phthisis; violent cough, with expectoration of bright blood.

Lycopodium.—Phthisis from a chronic bronchial catarrh with abundant, purulent, foul-smelling expectoration; cough night and day, with bloody mucus or purulent lemon-yellow, green, or white sputa, hectic fever; from consequences of violent or neglected pneumonia; worse in afternoons and again about midnight; night sweats, exhaustion, intercurrent pleuritic attacks; worse four to eight P. M., and on alternate days.

Lycopus virg.—Great irritability of heart, with palpitation from the least motion, quick weak pulse, hæmoptoe, great debility, loss of appetite, and diarrhœa.

Mercurius virus.—Stitches in the anterior superior portion of the chest extending through to the back when coughing; racking cough every other evening, with pain in chest and small of back,

tickling so great hardly allowing one to speak; violent night cough, shortness of breath as if inspired smoke; chill more apt to be in the evening; heat, with aversion to uncover; rawness and burning under sternum provoking a cough.

Myrtus com.—Stitching pain in left chest, straight through to the left scapula, worse when taking a long breath or coughing; burning pain in left chest, with throbbing, aching and tickling.

Natrum mur.—Spasmodic periodical cough, with rattling in chest and expectoration of bloody sputa; worse in the evening after lying down; congestion to head, with hectic flush; sleepy by day and restless at night; chronic coryza, with total loss of smell and taste.

Natrum sulph.—Of old people; phthisis mucosa; cough, with muco-purulent sputa, lower lobe of left lung.

Nitric acid.—Phthisis pulm.; congestion to chest, with anxiety, heat and palpitation of heart; stitches in right chest and scapula; shortness of breath, panting breathing during work; looseness of bowels, yellow complexion, morning thirst, ulcers in mouth, soreness of throat; green purulent blood-streaked sputa; extreme soreness of chest.

Ol. jecor. aselli.—Soreness in chest and stomach, with hard coughing spells in the morning; loss of strength and appetite; expectoration of yellow mucus or bloody sputa; affection of glands, bones or cutaneous troubles.

Phellandrium aquat.—Especially where the right lung is the seat of lesion; cavity of lung, with hissing sound on breathing, continuous cough; profuse sweat, diarrhœa, vomiting of food; copious purulent sputa.

Phosphoric acid.—Copious sweating; consuming night sweats; painless but weakening diarrhœa; apathy and indifference; violent hoarseness; cough with yellow expectoration tasting and smelling like herbs; shortness of breath, with inability to talk for any length of time on account of weakness of chest.

Phosphorus.—Especially if hereditary or have had scrofulous disease of bones in infancy; pain generally through apex of left lung, cannot lie on left side; goneness and weakness in pit of stomach; awaken at night and have to get something to eat; graceful, tall and slender persons; frequent attacks of bronchitis

(also kali carb. and lyc.); frequently chilly down the back, with burning and tightness across the chest; cough worse before midnight; caused by talking, cold air and from eating and drinking; hoarseness in the evening even to aphonia; expectoration frothy and blood-streaked; aphthæ in mouth; weakness in knees; rapid emaciation and pale skin.

Psorinum.—Pain in chest comes by fits; great anxiety; a feeling of ulceration under sternum; chest inflates only with much exertion; cough a long time before beginning to expectorate. (alum.)

Pulsatilla.—Very effective in suppurative stage; especially with chlorotic girls; dry cough after sleep, have to sit up to cough; sputa salty, offensive; bitter yellow mucus or black clotted blood (vicarious menses); no expectoration at night, all by day; anxious tightness in chest.

Rumex.—Night cough of phthisis, with or without clavicular pain; aggravation at two A. M.; cough extends from larynx down into breast.

Sambucus nigra.—Suffocative attacks after midnight, with shedding of tears; cough spasmodic, hollow and dry; tormenting; tough yellow mucous expectoration, saltish taste; afternoon fever; night sweats only when wide-awake; passing over in a dry heat as soon as falls asleep.

Sanguinara canad.—Incipient phthisis; chronic dryness in the throat, sensation of swelling in larynx; burning in chest; breath and mucus smells badly to the patient; belching of wind before or after coughing, which often relieves; heat after cough, after heat gaping and stretching; circumscribed redness of cheeks; often a tickling in stomach; voice weak.

Sarracenia.—Phthisis joined to or depending on a psoric state; hæmoptysis, blood thick; tickling continually in larynx and bronchi; cough with desire to vomit; paroxysms of suffocation and epistaxis; hard cough shaking chest and bowels, stopping only after expectorating a quantity of compact mucus, tenacious, filamentous, with a bitter, putrid oily taste.

Senecio aur.—Incipient phthisis, with fatiguing coughing, the result often of obstructed menstruation; increasing bronchial secretion; loose mucous cough; rattling in chest; labored respiration.

Sepia.—Oppression of the chest; shortness of breath from exercise; soreness in sternal region; cough at night until midnight; *better lying down;* coughs until breath is gone then gags or vomits; cough stops when loosens so as to expectorate a little phlegm; expectoration green or gray purulent matter; salty taste; worse on right side and from use of acids; sometimes a thick deep voice, without timbre; sensation of dryness in larynx; screeching; deep hollow cough.

Silicea.—Excruciating deep seated pains in chest; has to use the whole chest to speak; tickling itching threatens suffocation until a deep shattering cough comes on, which lasts several hours; formation of cavities; tuberculous deposits on skin, showing in lumpy tumors; waxy skin, worse by cold drinks (rhus.) by motion; hoarseness in morning; general heat with violent thirst; periodically returning heat during the day without previous chill, followed by slight sweat.

Silphium lac.—Abundance of the expectoration (stann.), but more watery than stannum and tasteless, stringy and light colored.

Spongia.—Severe dyspnœa on lying down; exhaustion after every exertion, especially of the chest; hoarseness with sudden aphonia while speaking; chilly in back, not removed by heat, yet if the room becomes warm the cough is worse.

Stannum.—Weakness in sternal region, cough as if from sense of constriction; great weakness of chest and voice, too weak to talk; copious sputa; glairy mucus like the white of an egg, streaked with yellow or yellow green pus, tasting sweet or saltish, more raised in the morning; great exhaustion, weakness of legs; chill at ten A. M. (nat. mur.), with numbness of finger tips, as in the evening over the back; empty feeling in chest, important characteristic symptom; cough worse by reading, talking, singing, lying on right side; more or less hoarseness; profuse night sweats; hands and feet heavy and cold or else burning hot.

Sticta pulmonaria.—Pulsation right side of sternum going down to epigastrium; cough provoked by inspiration, dry at night, loose in morning; incessant wearing, racking cough in consumptives.

Sulphur.—Soreness in upper part of left lung going through to back (myrtus); lungs feel as if they touched the back; cutting and burning deep in the chest; feeling of coldness in chest;

patient complains of being too hot; cough mostly dry, now and then profuse discharge of purulent matter, which relieves for a while, congestions; early diarrhœa in morning; profuse night sweats.

Theridion cur.—In the beginning, night cough; stitches high up beneath the left shoulder even up in the throat; great inclination to sigh; anxiety about heart; slow pulse with vertigo; icy sweat at night with vertigo and faintness; follows well after calc. or lyc. in phthisis florida.

Trillium.—Incipient stage with bloody sputa, or in advanced stages, with copious purulent expectoration, hectic fever and troublesome cough.

Tuberculinum.—We have no extended provings of this drug. Dr. Swan reports a case: great emaciation, constant cough, purulent expectoration; profuse night sweats; cured by the M. M.

Veratr. alb.—Consuming diarrhœa of phthisical patients.

Zincum.—Left chest, painfulness of left nipple; spasmodic sensation in lungs and heart; cough lasting all night, with shooting pains passing to stomach; spitting of blood after a hard coughing spell, followed by *burning and soreness in chest;* sputa sometimes yellow, purulent, tenacious or sweetish sputa with a metallic taste; jerking of body during sleep; cramps in external muscles of neck when swallowing.

For copious sweating, beside the internal remedy; sponging with acidulated solutions and especially phosphoric acid; also have plenty of water around in the room during time for sweating; a gill of warm milk just before the time has relieved it.

Laryngeal Phthisis and Complications.

Antimon. crud.—Violent spasms in larynx and pharynx, as if filled with a plug; *laryngitis of singers;* voice nearly gone; worse from getting over heated in a warm room; better after rest.

Argentum met.—With hectic fever; sweats easily on chest and abdomen; cough with easy expectoration of white thick starch-like mucus, without taste or smell; cough excited by laughing (stann).

Argentum nitr.—Inflammation and swelling of posterior walls and lining of the larynx, attended by a sensation of a clog in the

vocal organs; hoarseness and loss of voice; continual and vain efforts to swallow; muco-purulent sputa, with dry spasmodic cough.

Arsenicum.—Burning pain in larynx, increased by swallowing, which is difficult; short dry hoarse cough in rapid paroxysms, mostly in day time; prostration from nausea and difficult swallowing; better when warm in bed.

Belladonna.—Acute, spasmodic cough, with sudden attacks of hoarseness; feeble low voice.

Bromine.—Husky, hoarse voice; cannot speak clearly; voice weak and soft, with raw scraped feeling in throat, painful to the touch.

Carbo ani.—Cough with greenish expectoration and pneumonia of right lung; degenerating into suppuration, at the same time the larynx is chronically inflamed.

Carbo veg.—Long standing, of elderly people, or in persons whose vitality is reduced to the lowest ebb by insufficient nourishment rather than by disease; ulcerative pain in larynx with scraping, burning and titillation.

Causticum.—Laryngeal catarrh of singers; the muscles refuse to act; worse *morning* and evening.

Hepar sulph.—Laryngeal catarrh, grafted on an organism of tuberculous disposition; scanty, tenacious, muco-purulent secretion, with difficulty of expectoration; hoarseness.

Iodine.—Laryngeal ulceration; voice altered, husky; constant hemming and hawking; tightness and constriction about the larynx; trachea also implicated.

Kali bichrom.—Chronic laryngitis, with congestion; swelling of the tissues and increased secretion of a glutinous fluid; worse towards morning, when the tough mucus nearly strangles him; follicular laryngitis.

Kali iod.—Follicular inflammation; dry cough; burning tickling in throat; secondary syphilis, with deposits in throat.

Lachesis.—Hoarseness, rawness and dryness of larynx; sensitive to touch; feeling of lump in throat, etc.

Manganese.—In weak anæmic persons, or in such as exhibit tubercular deposits in lungs; hoarse voice in morning, which becomes gradually clear after expulsion of lumps of consistent mucus.

Nitric acid.—Chronic laryngeal cough, without expectoration, with a stinging or smarting sensation; long standing, short dry cough, continuing all day; very troublesome when first lying down at night, but not waking the patient from sleep.

Phosphorus.—Irritable weakness of vocal organs; violent tickling in larynx when speaking; dry spasmodic cough, with constriction of throat.

Sanguinaria.—Acute œdematous laryngitis; dryness in throat, with soreness, swelling and redness; chronic dryness in throat; sensation of swelling in larynx, and expectoration of thick mucus.

Selenium.—Tubercular laryngitis; raising of small lumps of blood and mucus; tendency to hoarseness; cervical glands swollen, hard, but not sore.

Senega.—Copious accumulation of mucus in the air tubes.

Spongia.—Dry, irritating cough from a burning tickling in larynx; swelling of submaxillary glands; swollen larynx almost protruding above the chin; difficult respiration, as from a plug in throat; whistling and rattling in the wind-pipe; hoarseness; great dryness of larynx; short and barking cough; worse at night; cough always coming on after eating sugar.

Sulphur.—Arterial and venous vascular irritability; great impressionability of the skin; rheumatic, gouty, herpetic, scrofulous diathesis.

CHANDLER WEAVER, M.D.

Laryngeal Phthisis.—Whether we ever find a laryngeal tuberculosis before a tubercular deposit has taken place in the lungs, has long been an open question, but at the present time the majority of investigators seem to have decided in favor of a primary laryngeal implication; though the question will, most likely, never be definitely settled until post-mortem examination shall demonstrate the existence of a tubercular infiltration in the laryngeal tissues without a corresponding pulmonary involvement.

This demonstration may be long deferred, since it can only occur where the patient dies from some intercurrent affection, and that, too, in the very earliest periods of the laryngeal tubercular deposit, for should the tubercles have existed long enough to eventuate in a phthisical ulceration of that organ, the broken down material of an infecting nature will have passed downward

into the cavity of the chest until it has found a suitable soil for its propagation, or the now popular bacilli may have wandered in the same direction, taking up their work of destruction in their new homes. Every laryngologist has, doubtless, many times met with cases of tuberculosis of the larynx long before the most carefully conducted physical examination has revealed anything abnormal in the thoracic cavity, but the question arises—Can there not be a change in the lung tissue so slight as not to affect, perceptibly, the physical signs? Undoubtedly there can, and such, I believe, is recognized to be always true in the earliest period of all cases of pulmonary tuberculosis; but where the lungs are so slightly affected, it is scarcely likely that their diseased condition should have such a deleterious influence on the larynx as to produce a pathological alteration in its structures, any more than that organ, when but slightly diseased, should cause a like affection in the lungs.

Again, it is the general experience with laryngologists, that if we are going to have a true tuberculosis laryngæ in any given case of tuberculosis pulmonum, it will be found, usually, as an early symptom, if not the first detectable morbid change; it being quite infrequent to find a true throat consumption setting in after the chest consumption has caused much destruction of the tissues involved. Would not this latter statement be a very strong argument in favor of the primary laryngeal trouble? Further, we know that there are occasional examples of well marked laryngeal phthisis which have gone on to a favorable termination without any appreciable change in the pulmonary structures.

In the review of an article, entitled "Tubercle in the Larynx," by Dr. Cohen, published in the *Archives of Laryngology*, for January, '83, we read: "He said that the vexed question about the existence of tubercle in the larynx was now set at rest, chiefly by the researches of Heinze and Eppinger. At last pathologists admit finding primary tubercle in the larynx; although the evidence is clinical only."

This theory is not endorsed by some of the leading laryngoscopists despite the positive statement of Dr. Cohen that "the vexed question is now set at rest."

"In common with Isambert and Mackenzie," says Dr. V.

Idelson[1], "Dr. T. Gurovitch admits, as a fact well established, both clinically and microscopically, that tuberculosis may occur in the fauces and pharynx primarily, though in the vast majority of cases it develops here only as a complication of advanced pulmonary phthisis."

The foregoing statement being admitted as true, it seems not unjust to claim a similar order of occurrence for the affection when invading the larynx.

As advocates of the primary laryngeal implication may be mentioned Waldenburg[2] and Buhl, Mandl[3], Isambert[4], Browne[5], James[6], B. Fränkel[7], Gerhardt[7], Cohen[8], Bosworth[9] and T. J. Walker[10]. Others there are who hold the same view, but the preceding are sufficient to show that a theory supported by such men must have something to recommend it.

Schrötter[11] is under the impression that there may be a primary laryngeal implication, but is unwilling to give up the idea that the pulmonary affection exists before the larynx is affected; although in such a mild form as not to be discoverable by physical investigation.

The CAUSES of throat consumption are similar to those which have already been enumerated in the portion of this paper entitled "Etiology." To these I have but to add that a weakened condition of the vocal organ, whether inherited or acquired, is a frequent predisponent to laryngeal phthisis. I do not agree with some authors who assert that use of the organ may predispose to the development of phthisis, for I think use of these parts, as in other structures of the human frame, develops rather than weakens the functions; but I do think that abuse may be one cause of the phthisical affection therein developed.

Of this affection we have two varieties, the acute and the chronic.

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[1] Braithwaite's Retrospect, July, '83, p. 76.—[2] The Lond. Med. Record, July 29, '74.—[3] Traité pratique des maladies du larynx et du pharynx, Paris, '72, p. 678.—[4] Conférence cliniques sur les maladiès du lar. et des premières voies, Paris, '77, p. 184.—[5] The Throat and its Diseases, London, '74, p. 222.—[6] Sore Throat, London, '78, p. 247.—[7] Transactions of the Internat. Med. Cong., Lon. '81, vol. III., p. 214.—[8] As above quoted.—[9] Dis. of the Throat and Nose, N. Y., '81, pp. 285, 6, 7.—[10] Quain's Dictionary of Med., p. 807.—[11] Jahresbericht der Klinik f. Laryngoskopie, for the year '70, p. 72.

The *acute* variety is very rare. According to Isambert, Fränkel and others, it consists in an acute miliary tuberculous deposit in the pharynx and larynx, which lasts but a few weeks after the lungs are involved. It appears as a disseminated collection of miliary tubercles, seen under the epithelium; appearing first on the pharynx, tonsils, soft palate, and uvula; later in the larynx, soon extending to the lungs.

Cohen * has seen one case which he believes was of this nature; but most authors are silent on the subject.

Chronic throat consumption has been divided by some authors into three, by others into four stages. The latter, I think, the more correct classification; which gives, 1st, a stage of *anæmia;* 2d, *infiltration;* 3d, *ulceration;* 4th, *caries* and *necrosis* of the cartilages.

It has been claimed by those who advocate the first division, that the stage of anæmia is not to be classed as a part of phthisis laryngea, because it may be found in any anæmic condition; this last may be granted, but it is such an anæmia as one does not find from other causes, for instance: from loss of animal fluids, for then one finds a general anæmia of all the visible mucous tract without congestion, while in the premonitory stage of phthisis there is an anæmia of the principal parts of the mucous membrane, but at the same time one usually sees enlarged veins coursing over the surface, while the vocal bands are often congested, dirty, dingy looking, and the entrances to the laryngeal sinuses often present a dark, purplish tinge, which color extends as far up into the cavities as one can see. Again, the soft palate, uvula and half-arches are often anæmic, which anæmia when, from loss of animal fluids, etc., is quite uniform, whereas in the phthisical variety portions of the pillars, especially the anterior, are quite congested, deep, dull red or purple. If in phthisis this general anæmia of the fauces and palate prevails, it is in all or nearly all cases, so far as my observation goes, in the later stages of the affection, when the diagnosis is quite clear.

Therefore, as the early signs of phthisis laryngæ, we have the peculiar anæmio-hyperæmia(?) which I have described; an infrequent, mild, unyielding cough aggravated by exertion; the voice

* The Amer. Jour. of the Med. Sciences, January, '83, p. 128.

weak with a feeling of vocal prostration—inability to produce a loud tone—the vocal cords remaining bound, or the vocal processes remaining slightly separated during vocalization; or complete, functional, aphonia. For the further premonitory symptoms I would refer you to the section on symptomatology.

It is in this first state that our time for action is most indicated, and when we get the case this early there are good grounds to hope for relief, since we can rarely find much, if any, lung complication at this stage; but unfortunately this period is often past when the patient comes under our care. If then we can check the progress of the disease in this stage, which we can do in some cases, the parts gradually return to their normal condition, the patient regains his strength, and is finally convalescent; should the disease continue its onward march, as too often happens, we have the second stage, that of

Infiltration setting in. The first thing which attracts our attention here is, usually, a marked deposit in the posterior wall of the larynx, between the arytenoid cartilages; and in two instances which have come under my notice in well nourished ladies, this swelling had ulcerated before any appreciable change could be made out in the lungs. One of these patients recovered; the other I lost sight of, but heard later that the lungs were greatly involved. These seemed to me to be examples of true primary throat consumption.

As another of the manifestations of the second stage we have a thickened, infiltrated, often œdematous condition about the ary-epiglottic folds and over the arytenoid and Santorini cartilages. This infiltration, which may appear on one or both sides, takes the pyriform shape, pathognomonic of laryngeal phthisis. With this form, however, we have often the 3d stage, ulceration, associated. This infiltration may not affect either the inter-arytenoid fold, the supra-arytenoid cartilages, or any epiglottic folds, but be confined to other portions of the larynx. The epiglottis may be greatly enlarged and œdematous, looking like a turban and completely obstructing a view of the laryngeal cavity; the vocal bands may be thickened and congested; or the ventricular bands may be so large as to completely hide the vocal bands except during phonation.

In the early part of this stage we are sometimes unable to make out any change in the pulmonary apices, but in several cases in which the laryngoscopic image gave doubtful evidences of phthisis, I have detected in one or both apices a wavy (sacculated) rather harsh inspiratory murmur, expiration being normal, or perhaps slightly harsh, and the percussion note as in health. The result was, in every instance, that within a very few weeks well marked signs of phthisis were developed; and the query has presented itself to my mind: May not this symptom become more valuable in aiding us to diagnose incipient phthisis than it has been heretofore?

In the latter part of the stage of infiltration, and the early part of that of ulceration, the pulmonary signs are usually quite unmistakable.

As the disease advances œdema is often added to the more solid deposit, which is, according to Wagner,* "A hyperplasia due to extensive proliferation of lymphoid cells in the adenoid tissue, normally very abundant in this structure."

The 4th stage, that of *ulceration*, is usually very characteristic; occasionally, however, it is impossible to distinguish the ulceration of phthisis from syphilitic ulceration of the larynx. Some of the characteristics of the phthisical ulceration are: The numerous small points involved, being difficult or impossible to heal. One rarely sees, unless at the very outset of the process, a solitary ulcer. These points may occur on any point of the larynx, but more particularly on the posterior surface of the epiglottis, on the vocal bands, or on the posterior wall of the larynx. In this latter position we find the characteristic—shall I say pathognomonic?—deposit and ulceration, which does not always appear, however, as an ulceration, but often presents prominences and points of projection as of new formations—granulations or polypi—or as spicules. These spicules, if not the prominences also, are occasioned by the destruction of the tissues located some distance below the uppermost tissues of the inter-arytenoid space. These deeper structures, having been in part destroyed, the tissues above lose their natural support from the parts below, and fall forward into the cavity of the larynx, presenting the appearance described.

* Das Tuberkelähnliche Lymphadenom. Leipzig, '70–'71.

When this posterior ulceration is situated higher in the larynx, it is more easily made out, and presents that characteristic worm-eaten appearance so often noticed in throat consumption. The superficial small points of ulceration may coalesce and form one or more large ulcerating surfaces, which may finally destroy the greater part of the mucous lining of the larynx and much of the sub-mucous tissue, even affecting the perichondrium, or still further the cartilage; the epiglottis may be eaten away, or the cartilages be cast off.

When the necrotic process attacks the vocal bands it usually eats through their entire thickness, commencing generally at their posterior extremities and then either separating them from their vocal processes, or extending along their free borders, leaves a worm-eaten surface extending, at times, from one end to the other, and may consume the greater part of their breadth. At other times the ulcer is situated on the upper surface of the vocal band, leaving the remainder of the vocal ligament intact; one cord may be alone affected, but usually both suffer.

These ulcerations may commence as yellow, cheesy, or reddish masses in the mucous membrane—tubercle (?)—which sooner or later break down, or become calcified, and are, according to some observers, cast out. Or the vocal bands being thickened and congested, present, at the same time, an uneven appearance, due to the destruction of their epithelium, which condition later becomes one of ulceration.

It is claimed by many authors that papillary excrescences and even good sized new formations often develop in the larynx as a result of the tuberculous affection. Dr. G. W. Major, in an article entitled "The value of post-laryngeal papillomata as a means of diagnosis in tuberculous diseases," recognizes two varieties: 1, the velvety; 2, the filamentous or feathery; these, he thinks, may be two degrees of the same disease. The histories of several cases were given, in which, by the existence of these growths, he had diagnosticated tuberculous diseases. These growths, he admits, are also found in other affections, *e. g.*, asthma; but there is, according to his belief, always a tuberculous tendency in these cases, and tuberculosis exists in the family. When these growths are present the prognosis is always bad. [Amer. Lar. Asso., '83.]

Dr. B. Fränkel, (Berlin Klin. Wochensch., No. 4, '83)* has found, in twelve cases, in the secretion which he wiped off of phthisical laryngeal ulcers, the tubercle bacilli of Koch, and states that "in this manner we can, with great accuracy, determine whether a laryngeal ulceration is of a tuberculous or a non-tuberculous nature." Other observers have likewise found these organisms in a similar manner, but it is very doubtful whether their presence has anything to do with making absolute the diagnosis, as it is now stated, on good authority, that they are found in other than tuberculous cases.

These ulcerations are nearly always attended by profuse muco-purulent, purulent, or even a sanguineous discharge. Often in the later stages when, from the swelling, ulceration and general loss of strength, the patient is unable to expectorate freely, the volecullæ, the pyriform sinuses, and even a part of the cavity of the larynx, become filled with these discharges and debris, thus preventing a clear view of the various portions of the vocal organ.

The ventricular bands often become much enlarged and inflamed, covering the vocal bands completely, and sometimes becoming attached to the latter structures by inflammatory adhesion; the ventricular outlets are entirely obliterated; the secretion of the numerous glands contained in these cavities is dammed back, and thus add to the already existing swelling and obstruction to respiration, deglutition and vocalization. The ventricular bands may not, on account of this general increase, be distinguishable from the ary-epiglottic folds; or these bands may ulcerate.

When the ulceration and tumefaction of the laryngeal structures become quite general, the normal relation of the parts may be so changed as to make it impossible to recognize the various anatomical land-marks. In this stage we often find a stenosis, with marked impairment in the respiratory function. This is especially severe if, in addition to that already described, there exists a paralysis of one or both of the vocal bands, so that the position which the paralyzed band assumes is near the median line. This may be due to mechanical obstruction, or pressure on the recurrent nerve along its course, *e. g.*, a tuberculous deposit in the right pulmonary apex; functional inability, or degeneration of the muscular tissues.

* Monatschrift f. Ohrenheilkunde, etc., June, '83.

The discharges will often deposit themselves in dry crusts upon the vocal bands, which, presenting near the median line, add still further to the dyspnœa, suppressing the voice completely and rendering the evacuation of this purulent, disintegrated material an impossibility. The smothered patient becomes nervous, exhausted, anxious, many times, to die; is either unable to eat or afraid to do so because the food will go into the larynx, and perhaps the trachea and bronchial tubes, and bring on most frightful cough and dyspnœa. This difficulty of deglutition is due chiefly to the infiltration and ulceration, these not only interfering with the action of the epiglottis, preventing it from closing over the superior outlet of the larynx, but also interfering with the closure of the upper portion of the larynx proper.

There is no portion of the vocal organ which may not be affected by this phthisical ulceration; thus the epiglottis may be so much destroyed as to leave only a stump; the vocal and ventricular bands and the ary-epiglottic folds may be, figuratively speaking, eaten away; the various laryngeal cartilages may, as a result of perichondritis and chondritis, become carious and necrosed and the smaller ones be cast off. Even portions of the cricoid (in a few instances the whole cartilage in mass) and thyroid cartilages may, though rarely, be exfoliated.

The cartilages most frequently affected are the arytenoids, together with the supra-arytenoids. The destruction of the former usually means that a permanent aphonia will result, although the support to the vocal bands which has been destroyed by their removal, may sometimes be in part replaced by the inflammatory adhesion between the posterior extremity of the vocal ligament and the mucous membrane and sub-mucous tissues, in which event a gruff tone may be produced.

Perichondritis is usually made out by the presence of marked swelling—inflammation, infiltration, and perhaps pus formation —over the site of the affected perichondrium; but "Heinze maintains that the largest swellings met with in laryngeal phthisis are not due to perichondritis, but to tuberculosis of the mucous membrane, and that in cases of perichondritis the tumefaction is often very slight." [Mackenzie, p. 276.] The pus, when it exists, may be evacuated, either naturally or artificially, thereby checking

further involvement of the perichondrium or cartilage; but usually when nature gives vent to the accumulation a sinus is left and the cartilage is finally destroyed.

The inflammation, ulceration, and perichondritis may extend into the trachea. The greater parts of several tracheal rings have frequently been exfoliated, and some patients have been fortunate enough to expectorate them; while others have had them pass downward, only to be expelled after being thoroughly broken up, or, before that result has followed, severe and even fatal inflammation has been occasioned.

Hæmorrhages sometimes occur from the larynx during the progress of the malady. These are rarely excessive, and never immediately dangerous to life. They are occasioned, usually, by ulcerative destruction of some of the coats of the arteries; the rupture taking place as a result of coughing or sneezing.

Cough is usually one of the earliest symptoms and persists in various forms, but usually severe, until the patient is either cured or has succumbed to the disease.

The *voice* is affected in nearly every case, varying from a slight roughness to complete obliteration of the vocal sound.

Pain is often absent during the whole attack, but is sometimes present, though rarely severe even where we find perichondritis, or ulceration of a deep nature. It is apparently caused more by the exposure of the nerve fibres as a result of the ulcerative process, than by any other change.

During deglutition the pain may be quite severe, when the epiglottis and posterior wall of the larynx are deeply ulcerated; in this instance the pain is often referred to the ear. Besides the pain and dysphagia, or perhaps total inability to swallow, we often find dyspnœa, and pain on attempted phonation. The characteristic laryngo-phthisical voice is deep, harsh, rasping, uneven, with an occasional squeak or more frequently an almost inaudible whisper for one or more words when the voice again becomes harsh and deep.

When pulmonary phthisis exists there are, in addition to many or all of the symptoms mentioned, the manifestations general and special—which have been depicted by Dr. Van Baun.

In the primary laryngeal phthisis the *general* symptoms may,

for a time, be so slight as not to attract the attention of either physician or patient, and recovery may take place without any severe systemic disturbance, but if the disease progresses, the general symptoms assume prominence, depending chiefly upon the pulmonary complications.

The DIAGNOSIS has been sufficiently referred to in the preceding pages, it only remains to give here some points, which may serve to distinguish throat consumption from those diseases which present a similar laryngoscopic image. When we have the pyriform swelling of the arytenoids and ary-epiglottic folds with hypertrophy and ulceration between the arytenoids, where the ulcers are numerous and scattered over the surface, we need have no hesitation in pronouncing the disease phthisical. These sign-posts, however, are not always to be found, even in cases of true throat consumption, and we may find it very difficult, and, indeed, sometimes quite impossible, to distinguish this disease from others; but usually when close and frequent observation is possible this will be the exception. The lungs should be carefully examined, the history carefully taken, the sputum examined, by boiling with a solution of potash in order to destroy the mucous particles, then place it under the microscope to ascertain if it contain any elastic lung tissue (Fenwick), and syphilis, cancer, chronic œdema of the larynx, and chronic laryngitis should be excluded.

In *syphilis* the characteristic history or the symptoms, *e. g.*, on the skin, etc., are very different from those obtained in phthisis. In syphilis we are apt to find but one ulcer and that large and situated consequently on one side of the larynx, surrounded by an inflamed area. In phthisis there are usually several small superficial ulcers, which may, it is true, finally coalesce. These are usually found on either side of the larynx and have no red areola as in syphilis. In syphilis the swelling is very irregular while in phthisis it is generally uniform and distinctly outlined. When syphilitic ulceration attacks the epiglottis it is usually the anterior or lingual surface and upper free border which suffer, in phthisis the posterior or laryngeal surface; after the ulceration is far advanced the whole organ may be destroyed in either affection. When the posterior wall of the larynx is involved in the ulcerative process, together with infiltration in that region we can exclude

syphilis. Again, ulceration over the arytenoid cartilage is rare in syphilis, frequent in phthisis. Ulceration of the vocal and ventricular bands is more often confined to one side in syphilis than in phthisis. Further, the development of ulcers in syphilis is acute; in phthisis slow, and preceded usually by swelling. Again, we rarely have pain in the larynx in syphilis, in phthisis occasionally, especially during functional activity, or from external manipulation; finally the ulcers of syphilis show a marked tendency to heal, and are followed by cicatricial contractions and adhesions, which sometimes result in marked stenosis of the larynx and trachea; in phthisis the ulcers show but slight, if any, tendency to heal, and are not followed when that result does occur by cicatricial distortions. Syphilitic ulcers are frequently found in the pharynx, phthisical very seldom; phthisical ulcers may form on the tongue, in which position one can study, very easily, the various stages of the process. We sometimes find, unfortunately, a combination of these two diseases in the same individual; then the history or the subsequent developments in the case must give us the clue to the exact nature of the malady.

In *carcinoma* pain is present all the time, in phthisis rarely except during functional activity and is *always* less severe than in cancer. In the cancerous disease a growth is observed to precede the ulceration which is easily distinguishable from the deposit of phthisis, both from its position and its shape; that of phthisis being more circumscribed, paler, more œdematous looking, less irregular and less inflamed than in cancer, and in the latter affection the swelling can usually be felt externally. The ulcer in cancer is larger and more irregular in outline, more acute in its development, and the surrounding mucous membrane more acutely inflamed than in phthisis.

In *chronic œdema* we find a transparent, clear, waxen appearance of the tissues, while in phthisis we do not find that peculiar transparency for there is, at first, a solid deposit which may later be covered with a layer of œdematous effusion.

In *chronic laryngitis* there is usually less swelling and more hyperæmia than is found in throat consumption. In the early stages of the latter the mucous membrane is usually dirty pale, except over the vocal bands where it may be much congested, and

enlarged vessels are often seen coursing over the tissues, while in chronic laryngitis there is a general hyperæmia of the mucous membrane, which is usually likewise found in the fauces and soft palate. It is, however, often impossible to make a differential diagnosis between chronic laryngitis and throat consumption in its early stages. I doubt the existence of a true catarrhal ulceration of the larynx, as claimed by some, though a destruction of the epithelium is not an infrequent result of the ordinary catarrhal affection.

In concluding the diagnosis of throat consumption, I wish to state that cases do come under our care, in which the affection is not, apparently, ushered in with anæmia, and in which the various stages are so mingled that it is difficult to say which predominates, as the various processes of two or more are present at the same time.

The PROGNOSIS of laryngeal phthisis is always unfavorable. Some laryngologists doubt the correctness of diagnosis where the individual recovers. Mackenzie * says: "The prognosis of larnygeal phthisis is always extremely unfavorable, and it is not certain that any case ever recovered." I think, notwithstanding, that under judicious treatment guided by the law promulgated by Hahnemann, that we can make a more favorable statement. I feel quite certain I have had the pleasure of seeing cases recover by internal medication alone, but have seen better results still where our remedies were assisted by some appropriate soothing local treatment. The prognosis is naturally more grave where the lungs *and* larynx are affected, than where the lungs alone are involved, and those cases which present laryngeal with but slight, if any, pulmonary trouble have the best chance to recover. When the ulceration of the larynx is very extensive, or the infiltration very great, interfering much with deglutition, the prognosis is very grave, as the patient usually succumbs early to marasmus. When the ulceration is situated within the cavity of the vocal organ, the fatal termination is longer delayed than when the external parts, as the epiglottis and ary-epiglottic folds, are involved. The duration of life—when the patient does not recover—is from six months to six years.

* Pharynx, Larynx and Trachea, p. 278.

The *hygienic, dietetic and general* TREATMENT will be considered in the paper devoted to "treatment." I will, therefore, confine my remarks on this branch of our subject to the local measures which I have found especially beneficial, or would seem particularly indicated in certain complications, merely mentioning as internal remedies those which have done the most good in my hands. This I do the more willingly, that I may not increase the length of my paper, already too long—yet too brief for the thorough consideration of this extensive subject.

In the first stage—anæmia—general internal and physical treatment are chiefly to be relied upon. Where there is functional aphonia in addition to the anæmia, faradization should be resorted to; and should there be much congestion of the laryngeal mucous membrane, mild steam inhalations, such as pine oil or balsam of peru; or local brushing with zinc chloride 5 gr. to glycerine and distilled water each ½ oz., or insufflations of alum or boracic acid; this latter powder I have used with great benefit in several instances, in the first and second stages, and have even succeeded in healing superficial ulcerations with it. Of the application of this powder to the larynx I have never seen any allusion by writers of either school; but from my experience I do not hesitate to recommend its use in such cases, and even in the ulcerative stages I have had more satisfaction from its use than from the much lauded iodoform, in the action of which I have too often been disappointed.

In the second stage—swelling—boracic acid and iodoform as insufflations, chloride of zinc in solution, or occasionally pine oil or creosote as a steam inhalation may be employed; these should not be used oftener than once a day, and if the steam be employed its action must not be kept up longer than ten to fifteen minutes, nor should the patient go into the cool air after its use for at least thirty minutes, for fear of exciting a fresh catarrh.

When the ulceration has set in with much discharge, the first thing to be accomplished is the cleansing of the parts. This is to be done by means of the spray, which should be directed into the larynx through a bent atomizing tube which is to be guided by the laryngeal mirror, otherwise the spray, which should be propelled by a double hand-bulb or by an exhaust pump, may not

reach the desired location. The spray may be medicated or not; those which I generally employ are medicated slightly either with tannic acid 10 gr. to 1 oz., or carbolic acid 2 min. to 1 oz. When the parts are quite free from pus, mucus, etc., either an insufflation of one of the powders already mentioned should be made to the ulcerated surfaces, or, as advised by Schnitzler,* in the use of iodoform, to blow the powder well over the entire superior surface of the larynx, which process is to be repeated several times at each sitting. Or, again, the chloride of zinc which I apply by means of absorbent cotton securely wound on the end of a laryngeal probe. In case of great itching in the larynx with a sensation as though the mucous membrane were fissured, I have used with great relief a solution of nitrate of silver, 5 gr. to 1 oz.

As inhalations, either of the following may be used to advantage where the throat feels very dry or irritable. Plain steam at a temperature of 120° to 130° F.; or an ounce of benzoin to the pint of water with, perhaps, one or two drops of chloroform. Those who believe in the germ origin of the affection claim much benefit from carbolized hot water inhalation. I, however, have not seen any good result from this remedy, except the alleviation of the dryness.

When the patient is confined to his room, a steam spray should be kept in action when the atmosphere is very dry, as it too often is, particularly in winter, when a furnace in the cellar furnishes the heat to the sick-chamber, which room is often so tightly closed that not only is external air excluded by the way of the windows, but the door which leads to the better ventilated portions of the house is also closed.

The troublesome nausea which is such a frequent accompaniment to these cases is often speedily relieved by swallowing a teaspoonful of pure glycerine, preferably Bower's; this remedy, and I might add food, often, likewise, soothes the night-cough. Scarification of the infiltrated tissue is of doubtful value, save where a secondary œdematous laryngitis exists. When we find a piece of necrosed cartilage quite loose, and projecting into the cavity of the larynx, it should be removed by means of the laryngeal forceps.

* Monatschrift f. Ohrenheilkunde, etc., No. 6, '83.

When the patient is unable to swallow without severe pain, and prefers to go without food or drink rather than endure the suffering incident to deglutition, blow daily on the ulcerated portions of the larynx the following powder, viz.: morphia acetate, $\frac{1}{8}$ gr. to $\frac{1}{4}$; sac. album, or starch, 3 gr.

The greatest effect from this remedy being reached about one hour after its application, the patient should at that time eat something—as the act of deglutition is then usually painless—of a bland quality and semi-solid, such as a raw egg swallowed without previously breaking the yelk, raw oysters, gelatine, corn-starch, oat-meal gruel, plenty of good milk, Irish moss as a drink, or wine whey, as so much employed in Germany. Murdock's liquid food and Hoff's extract of malt must not be overlooked. Broths, soups, etc., had better be thickened with arrow-root or corn-starch. With the throat in the condition last referred to, food and drink should be taken in quite large mouthfuls, not sipped, as the patient is wont to do. Acids and condiments should be avoided, but the juice of fruits may be held in the mouth to relieve thirst. When so much of the epiglottis and posterior portion of the larynx have been destroyed as to render deglutition dangerous, or where the morphia does not give sufficient relief to the suffering during deglutition, the stomach tube should be employed, or nutritive enemata may be made use of.

Where there is threatening dyspnœa Schrötter* has sometimes succeeded in dilating the larynx sufficiently with his hard-rubber catheter to allow the patient to breathe quite freely, but where this cannot be accomplished tracheotomy is unquestionably called for, whether the difficulty in respiration be due to serous œdema—not yielding to scarification—to the general infiltration of the parts, or to an impacted necrosed cartilage, which cannot be removed *per vias naturales*. Even where the dyspnœa is not immediately dangerous, patients often improve speedily, for a time, after its performance, and some cases have been reported cured by it. Its performance, however, is seldom more than palliative, and sometimes hastens the fatal termination. It is, therefore, usually to be recommended as a last resort.

While I have employed many remedies in the treatment of

* Jahresbericht der Klin. f. Laryngoskopie for '70, p. 60.—'71–'73, p. 73.

throat consumption, those which have proved themselves most curative in my hands have been *acid. nit.*, *argent. nit.*, arsen., *arsen. iod.*, *calc. phos.*, carbo. veg., iodine, *lycop.*, phos., seleniate of soda and sepia.

HORACE F. IVINS, M.D.

TWO CASES OF ANOMALOUS INTERMITTENT FEVER.*

(Presented to the Homœopathic Medical Society of Pennsylvania, 19th Session.)

BY PAZ ALVAREZ, M.D., MADRID, SPAIN.

I. B———, a girl nine years old, of lymphatic temperament, ruddy, stout growing, who had frequently suffered from verminous fevers, because of an habitual condition of helminthiasis, maintained by irregularities of diet, and above all by the immoderate use of pastels and sweets, a vice which had been unrebuked by her parents, who on this point were heedless of professional counsel, was taken sick on February 20, 1882, with vomiting, thirst, headache and an intense heat of the skin.

Summoned on the morning of the 21st, with great urgency, I went to see the child, whom I found with high fever, pulse 132 per minute, temperature 40° C., skin burning hot, heightened redness of the face and conjunctivæ, tongue covered with a thick white coat, pain at the throat, with sensitiveness to touch in the submaxillar regions, agitation, crying and moaning. Examining the posterior chamber of the mouth I found the mucous membrane to be red, swollen, shining and dry; tumefaction of the tonsils and uvula. This examination was not very easy, because the child complained of great pain on opening her mouth for due inspection of the fauces. The diagnosis of her sickness was quite clear, viz.: an acute, catarrhal angina, which I began to treat with acon.[200] (Jenichen), eight globules in a half glass of water, the patient taking a spoonful every three hours, and sugared water as her ordinary beverage and sole diet.

22d. The fever had sufficiently abated, but the agitation and

*Translated by T. M. S.

uneasiness of the child continued in a modified degree, caused by the pain in the throat, which had increased. The fauces were only examined with some difficulty, and I noticed that the tumefaction of the tonsils and palate was much greater, the passage of liquids causing sharp pain; the mucous membrane was less ruddy, and somewhat moistened by a mucus hypersecretion, which was most apparent on the tonsils and pharynx, forming in these regions isolated concretions of a whitish color. The redness of the face was very marked, the thirst intense, with fear of any drinking on account of the throat pains, and the fronto-parietal headache most distressing. In view of this group of symptoms I prescribed *bellad.*[200] (Jenichen), eight globules in a half glass of water, a spoonful to be taken every three hours.

23d. The patient was somewhat relieved; the fever had much abated; pulse 104, and temperature 38° C. The agitation and restlessness had disappeared, as likewise the redness of face and the headache; the thirst was diminished, as well as the pain in the throat, and liquids were imbibed with greater facility. The tumefaction of the tonsils and palate was much less than on the day before, but, on the other hand, there was a greater hypersecretion of mucus. I prescribed the same medicine, a teaspoonful every four hours.

24th. The child felt easy, and desirous of eating; pulse at 76 and temperature 37° C.; the tumefaction of palate and tonsils had entirely disappeared, as had also the pain and dysphagia of the throat; but the membrane of the posterior section of the mouth and of the pharynx was entirely covered with a glossy mucus, yellowish white, which occasioned some cough, whereby the patient expelled small yellowish concretions of membranous appearance, enveloped in much spumous saliva. Regarding chiefly this anomalous and excessive hypersecretion, the patient's condition being otherwise satisfactory, I ordered *mercur. sol.*[200] (Jenichen), ten globules in a half glass of water, a spoonful to be taken every three hours, and soup every six hours.

25th. The hypersecretion on the membrane of the fauces had ceased, and the yellowish-white mucus disappeared altogether; the child's mother showed me on a white rag a large quantity of sputa formed of the membranous mucous concretions, many of which

contained blood particles, and some being white and others dark yellowish in color, which had been expectorated by the patient during the night. Her pulse had fallen to 68, and temperature to 36° 8′ C.; she was clamorous for food and wished to leave the bed. I directed the same medicine, a spoonful every six hours, and a bread soup every four hours.

26th. As the child was improving I suspended all medication, directing her to have some chicken, and more liberal nourishment on the following day, dismissing myself as not further needed, but advising the parents to take every possible hygienic precaution to hinder a relapse.

28th. This evening I was again called in. The child got out of bed the day before, and without any known cause had shown a slight fever from 3 to 8 o'clock in the evening, but with no diminution of appetite, which was considerable; the parents had not advised me, because they thought this incident of no importance. At 1 P. M., of the 28th, the patient had a chill that pervaded the whole body, followed by a slight fever, which went on increasing until I saw her at 5 o'clock. Her temperature was now 40° C., and pulse 116; she was restless and fidgety, complaining of much heat and thirst, red at the eyes and face, and pain and dysphagia of the throat. The membrane of the back part of the mouth was reddened, swollen, moist, especially at the tonsils, where a deep excoriation was visible, yellowish-white around the base. Considering this group of symptoms as a clear return of the fever I prescribed *acon.*[200], and complete abstinence.

March 1st. On the morning of this day, and without any abatement of the symptoms, there was also a general warm perspiration, very copious, which had begun two hours after midnight, and the excoriations of the tonsils had spread greatly. Taking the perspiration into account, I gave the patient *mercur. sol.*[200], a spoonful every three hours, the abstinence to be maintained in spite of the child's eager appetite.

2d. In the morning I found the girl perfectly well, without fever, normal temperature, throat in natural condition, and crying because she could not get food. The parents told me that from 12 to 1 o'clock of the day before all the symptoms had disappeared, the improvement continuing up to the present. I

directed her to have soup every four hours, and every six hours a spoonful of *mercur. sol.*

3d. I found my patient with the same symptoms as on the 1st. From noon to 1 o'clock of the 2d, she was taken with a strong chill all over, which lasted three minutes, the fever then following with the same symptoms as on the 28th. I examined her throat and found it very red and swollen, especially the tonsils, each displaying a wide excoriation with foul yellowish base. The heat had risen to 40° 8′ C., pulse to 120, and the skin was covered with a profuse, warm sweat. The child complained of sharp pains in the throat, at the points near the ulcerated tonsils, which now exhaled a fœtid odor. Viewing the extension of this ulceration, and its fœtid product, I ordered *sulphuric acid*[200], a spoonful every three hours, and complete abstention from food.

4th. To my amazement the child was very well this morning, no fever; normal temperature, strong appetite; the throat had its natural appearance, and no sign whatever was left of the excoriation at the tonsils. Such an absolute change from one day to another had already been twice noted, and made me study deeply on the singular course of the malady, suspecting it might be an intermittent fever of anomalous character, although the throat symptoms might not well accord with such belief. I therefore decided to hold the patient under observation, and without any medicine or food whatever.

5th. At 8 o'clock in the morning I was urgently summoned as the child was worse. I found her with the same symptoms as on the 1st and 3d. The parents told me that at 1 o'clock on the afternoon of the 4th she had a severe chill, which lasted ten minutes, followed by fever, which was at first gentle, but became burning after midnight, and was marked towards 5 o'clock A. M. by several copious and distressing sweats, so that the child cried unceasingly, having also an insatiable thirst and continued restlessness. The patient remained bathed in a very warm perspiration, with high fever, pulse 132, temperature 41°; she complained of darting pains in the throat, especially on swallowing, and excessive headache. I observed that the fauces had the same appearance as on the 3d, but the ulceration at the tonsils had widened, and now embraced the pharynx.

In view of the periodicity of these symptoms, I had no longer any doubt that I had before me an anomalous case of intermittent fever, such as I had never before seen; interpreting the peculiar throat symptoms as a result of the appearance of the disease when the child was convalescing from the acute catarrhal angina, and their reappearance as due to the intensity of the febrile attacks; but what I could not in any way explain to myself was the rapid and complete disappearance of those symptoms, including the large excoriations, simultaneously with that of the fever spells, the fauces resuming their normal condition during the apyrexia. My surprise was boundless at the singularity of the case, which was unique in my extended practice, and considering that my medication, as based on the throat symptoms, had not been efficacious, I now judged it expedient to treat the patient for the general symptoms characterizing such fevers.

The uniform appearance and disappearance of the attacks at a given hour, each lasting twenty-four hours, and followed by an apyrexia of similar duration; their punctual commencement between 12 and 1 o'clock in the daytime; the short period of intense chill; and above all, the aggravation which was manifested on the advent of the profuse and long continued sweats, the fever not diminishing therewith but promptly and simultaneously passing off with the perspiration at noon of the day, all decided me to select *chininum sulphuricum*[200] (Jenichen), of which I ordered three doses of six globules each, one to be given to the child at noon on the beginning of the apyrexia, dissolved in two spoonfuls of water, another at 10 o'clock at night, and the third at 6 in the morning.

6th. As in previous attacks the apyrexia began at noon of the preceding day; the girl took the three doses of the *chinin. sulph.*, and on examining her in the evening, when I called to see her, I had the satisfaction to find her well, no access of fever being noted, only at half-past 12 o'clock, noon, she felt chilled in the toes of both feet, a sensation which lasted for a few seconds only.

The intermittent fever did not again make its appearance, nor any symptoms whatever in the throat; the child was plainly recovering, and had a first-rate appetite, which was ministered to with caution, to prevent any relapse, and on the 10th she went

out walking, since which date she has been entirely free from all sickness.

II. Miss L———, 17 years old, lymphatic temperament, good constitution, though psoric, menses regular, took cold at the end of last March, on visiting a benevolent institution through whose spacious galleries swept a strong and chilling current of air. In two days her appetite began to fail and her tongue to assume a whitish-yellow coating, with feelings of depression, sadness, and unaccountable general distress. These symptoms not abating, but rather increasing, I was called in to see her on the 28th of that month. Her pulse and temperature were normal, and no other trouble being apparent, I ordered her *ipecac.*[200] (Jenichen), six globules in a half glass of water, a spoonful to be taken every six hours. On the 29th, 30th and 31st, the above symptoms continued without abatement, despite the successive employment of *ipecac.*, *pulsat.* and *bry.*

On the 1st of April, and while under treatment with *bry.*, the patient was, at 3 o'clock in the afternoon, suddenly attacked by a fever of extraordinary intensity—no chills or flashes having preceded it—with cephalalgia, pain in the throat, great redness of face and burning of the scleroticæ, pulse 120, temperature 40° C., skin very hot and thirst insatiable, but drinking little because of the dysphagia occasioned by water. From this array of symptoms I was led to prescribe *bellad.*,[200] a spoonful every three hours, which she began to take at 5 P. M. The fever disappeared two hours after midnight, without any sweating, and, as the patient expressed it, "as suddenly as it came in;" and when I went to see her on the morning of the 2d, I found her tranquil and with an appetite and desirous of getting up to her usual occupations. I only permitted her light soups, although she claimed to feel so well, the tongue having still its whitish-yellow coating, and I did not prescribe any medicine, but kept the patient under observation.

4th. The patient continued improving up to 6 o'clock in the evening of the 3d, when without any chill she was suddenly attacked by the fever, but less violently, and it gradually abated from 1 o'clock to 7 in the morning, when it passed away, having exhibited the same symptoms as on the 1st, excepting those of the throat. I was already well convinced that I had to deal with an

anomalous intermittent fever, developing itself in an insidious manner. For the purpose of making it regular I prescribed three doses of *chininum sulphuricum*[200] (Jenichen), the patient to take one every six hours in two spoonfuls of water.

5th. In the morning of this day menstruation began at its due time, but did not hinder the fever from declaring itself at 8 o'clock in the evening, with a chill which lasted a quarter of an hour, heat lasting for six hours, and then a perspiration which ceased at 8 o'clock on the morning of the 6th, the symptoms during the three periods being so moderate as scarcely to distress the ailing girl. I thought it opportune to suspend all medication during the menstrual period, hoping from the insignificance of this last attack that the intermittent fever would vanish at the same time.

10th. The menstruation ceased normally on the preceding day, and just as if the intermittent fever had waited for its departure to step in again—the patient meanwhile having a trifling access of all its three stages on the night of the 7th—so at 6 o'clock P. M. it came on with a severe chill, first beginning in the toes, and then invading the whole body for half an hour; this succeeded by high fever with cephalalgia and adipsia which lasted until 3 A. M., and was followed by sweating which ended at 6 A. M., the patient then feeling entirely relieved. By reason of the adipsia which marked this attack I gave the patient three doses of *pulsatilla*[200], to take one at successive intervals of eight hours in two spoonfuls of water.

12th. At 4 o'clock on the afternoon of the 11th, or two hours later than before, the paroxysm again appeared with different symptoms from the previous attack; the chill was accompanied by shivering, nausea, and great thirst, the satisfying of the latter seeming to intensify the chill, so that the patient declined water notwithstanding her great thirst. This stage lasted three-quarters of an hour, and at the beginning of the fever the nausea increased, and was followed by continual vomitings, mucous, greenish and yellowish in character and a persistent diarrhœa of watery yellow stools; the fever and thirst were excessive, with violent headache, burning face and restlessness, up to 11 o'clock at night, when the perspiration set in and the gastro-intestinal symptoms disappeared,

the patient then feeling well and sleeping soundly till 1 o'clock A. M. Considering the gastro-intestinal symptoms I prescribed *ipecac.* [200] in three doses, one to be taken every eight hours.

14th. At 2 o'clock in the afternoon of the 13th, being again a delay of two hours, the attack began by a chill of extraordinary intensity; much trembling and spasms, especially in the lower extremities; nausea, vomiting, headache and insupportable thirst, with fear of drinking water as it aggravated the chill, as also did the least movement, so that the patient continued in bed without stirring or permitting the coverings to be displaced. The chill lasted an hour, and at the beginning of the fever stage the gastric symptoms appeared, and a frequent but scanty diarrhœa, with most violent abdominal pains, worse on defecation and on the least movement; ardent heat, thirst, stupefying headache, and tongue dry at the middle. At 9 P. M. began the sweating period, the perspiration being very abundant and lasting till 2 o'clock A. M., when all the symptoms disappeared and the patient slept soundly till 10 in the morning. Prescription: *nux vom.*[200], three doses, to be taken every eight hours.

16th. The chill began on the 15th, at noon, and was extreme in its character, with trembling, cramps in the calves of the legs, facial contortions, blue circles round the eyes; nausea, and vomitings of whitish, greenish and yellowish matters; thirst and a sense of excessive suffering, anxiety and restlessness, with eagerness of the patient to be warmly covered up, which symptoms lasted an hour and a half; at this time came on the fever period, with increase of the nausea and vomiting, sharp abdominal pains with frequent and abundant diarrhœa, rectal tenesmus and such abdominal urgency, with disturbed countenance, that the patient seemed like one suffering from cholera, only lacking the cold and cyanosis; the heat was burning and general, tongue and mouth dry, thirst insatiable, and whenever this was appeased the abdominal symptoms were aggravated and defecation became imperative. On the appearance of the perspiration, at 2 o'clock A. M., all the symptoms disappeared, the sweat itself not being excessive, but accompanied by general prostration, lassitude and drowsiness. Viewing all the symptoms of this attack, I feared that the intermittent fever was assuming a pernicious character, and wishing to

avert this ordered *arsen.*[200], in three doses, at intervals of eight hours.

As a result of these three doses of *arsenic* the gastro-intestinal symptoms disappeared, and although the patient had two further attacks of the intermittent fever, on the 17th and 19th, they were quite brief, with chill, heat and respiration severally slight, and not occasioning any suffering, the fever finally disappearing after three doses of *rhus tox.*[200], given because these two latter attacks had come on after the hour of midnight, the doses in question following on the second attack.

The patient continued quite well until May 5th, at which date the menses were due, but made no appearance, while the intermittent fever did, with its cold, heat and sweat, though brief in duration and feeble, and some nausea and vomiting during the heat stage. The three stages lasted no more than an hour, the patient not even taking to bed.

On the 7th the intermittent set in with a strong chill, confined to the extremities, and a frequent dry cough; adipsia and uneasiness; all these lasting for half an hour. A rather marked hot stage followed, with much restlessness, yawning, vomitings, flushing of the face and great thirst, the entire period lasting three hours. The perspiration was very profuse and general, and passed off in an hour and a half, leaving the patient quite sleepy. Considering the range of symptoms, and that the fever had usurped the period of menstruation, being exactly the reverse of what happened the month before, and judging that the intermittent was kept up by the absence of the catamenial issue, I gave my patient three doses of *sabadilla*[200], one to be taken every eight hours. Four hours after she had taken the third dose the process of menstruation set in, the flow being normal in color and quantity, without any appearance of the intermittent, which was due on the 9th.

Since then Miss L—— has continued quite well, her menses having begun on June 5th, as usual, and she is now as plump as ever, no symptom of the malady having since presented itself.

CLINICAL INDICATIONS TO SERVE FOR THE HISTORY OF THE HOMŒOPATHIC TREATMENT OF IDIOPATHIC GOITRE.*

(Presented to the Homœopathic Medical Society of Pennsylvania, 19th Session.)

BY H. BERNARD, M.D., MONS, BELGIUM.

The aim which I have in view, in this paper, is to present the history or analysis of a certain number of clinical facts, a few of which, observed by myself, have not been published, while the others have been taken from authorized sources, many of them being perhaps, less known in America than in Europe. Finally, I will give some reflections or deductions for the purpose of clearing up in some degree the problem which we have under consideration.

I. CLINICAL OBSERVATIONS.

1. Rosalie O——, 18 years of age, brunette, features regular but pale, mild, peaceful disposition, almost phlegmatic, menses regular for some years and of general good health, had for several years a marked swelling of the thyroid gland. On August 15th, 1834, she received the first dose of iodine $\frac{5}{30}$, in two drams of spirits of wine and water, ten drops in a spoonful of water every day. September 30th, the swelling had disappeared, but as a precautionary measure I continued the remedy until the end of October. I saw this patient at the end of February, 1835, and there was no deformity of the neck. (Dr. Tietze, Pr. Beitr., 3, 107.)

2. Mme. S——, aged 25 years, married for three months, was attacked, without any known cause, with a marked increase of the thyroid gland, which had been already slightly enlarged. There was acute pain in the gland upon pressure or on the slightest movement of the head. Her general health was good. I gave her on the evening of July 10th, bellad.^{30} one-half drop, and on the 13th, not seeing the least amelioration in her condition, I gave merc. sol. $\frac{5}{12}$. On the 20th the condition was the same, and I then gave iodine $\frac{2}{30}$ (dissolved as in the previous case), ten drops in water every day. The amelioration was prompt. (Idem, l. c., p. 111.)

* Translated by T. M. S.

3. H. B——, 21 years of age, tailor, poor and ill-nourished, lymphatic temperament and scrofulous, consulted me, in 1851, for an enormous swelling of the neck, of several months' duration. I found the entire thyroid gland greatly increased, soft and without any fluctuation. The tumor did not cause any dyspnœa, but interfered very much with any movement of the neck. Two drops of the tincture of iodine were prescribed, to be taken three times a day. One week later he returned and the condition was aggravated. I decreased the dose to one drop of the tincture, three times a day. At the end of a week there was a new aggravation. The medicine was then given in the dose of one drop of the first decimal dilution, morning and evening. At the end of two months the cure was complete, without any apparent disturbance. (Dr. Kidd, *Brit. Jour. of Hom.*, April, 1867.)

4. Mlle. M——, 16 years of age, bilious-lymphatic temperament, suffered for a year past, the date of the first menstruation, with an hypertrophy of two of the lobes of the thyroid gland; the tumor becoming more swollen and painful at each return of the menses, which were irregular and painful. I prescribed iodine^{1x}, three drops three times a day. She took the medicine for a month without any result; during the next month the dose was doubled, but with the same result. The tincture was then given in two drops doses three times a day. At the end of several weeks, the condition being unchanged, I gave kali hydriod.^{1x}, five drops three time a day, but without any benefit. I then prescribed again iodine^{1m}, five drops three times a day. An immediate and marked effect was produced, and the disease was cured in six weeks without any trouble in the general health. (Dr. Kidd, *loc. cit.*)

5. Mlle. P——, age 12 years, lymphatic temperament, fair complexion, and delicate constitution, was brought to me in August, 1852. Her mother said that for the past year she had noticed an increase in the size of the neck, especially on the right side. At first the parents did not wish to attempt any treatment, since an aunt, who presented the same constitution and the same temperament, had suffered from the same affection at the age of this patient, and having been cured by large doses of iodine, her health had remained delicate and she herself feeble for the rest of her life, an effect attributed by the family to the iodine. On examining

the patient her neck was found to measure fourteen inches and a half over the isthmus of the thyroid body. Her general health was feeble and the menses had not yet appeared. Iodine[1x], one drop twice a day, was given for a month, with directions to then omit the remedy for several weeks. She was given a generous diet, including one or two glasses of claret at dinner. Soon afterwards she left London and entered a school at Ipswich and went under the care of Dr. Crapper. From September 18th to January 18th, she received spong.[12], nat. mur.[12], iodine [3d and 30th], but without any effect upon the goitre, although the menstrual flow had appeared and was irregular and light colored. From January 19th to February 9th, I prescribed, without any marked effect, iodine[1x], four drops morning and evening. I then increased the dose to six drops three times a day. On February 25th, the swelling had decreased to thirteen and a half inches. The same treatment was continued for six months, with only slight interruptions, later the intervals were longer. In short, the goitre was cured and the general health perfectly restored. (Dr. Kidd, *loc. cit.*)

6. L——, farmer, age 58 years, had in the anterior and median portion of the neck a non-lobulated tumor due to an hypertrophy of the thyroid gland. He could not give the date of its appearance, but for the last fifteen years it had grown rapidly so that in the midsummer of 1872 it had acquired a size equal to the head of a child of twelve years of age. The tumor had a rosy-red color, was heavy in weight and of a soft consistency. There was no pain, but for two years the voice had been slightly rough and the respiration difficult, especially when lying upon the back. The general health was good. On July 12th, 1873, I gave spong.[30] and continued it until August 3d, but without any benefit. On the latter date he was given two powders of iodine[6] to take at an interval of three days, and sac. lac. for fifteen days. On August 17th, the patient reported, that since the third day after taking the last medicine he had not felt as much tension in the tumor, and that since then his respiration had been entirely free; the voice was also clearer. I allowed the medicine to continue its action for eight days longer, but without any further effect. On August 24th I repeated the iodine[6] and amelioration began again and continued until the middle of September, when, the progress having ceased,

the remedy was again repeated and a new impulse given towards a cure, but benefiting by past experience I repeated the remedy every day until December 25th. On January 1st, 1874, the tumor had completely disappeared, and to-day the neck still maintains its conformation and ordinary volume. (Dr. Schepens, *Rev. Belge.*, 1,143.)

7. Mrs. J. B——, 29 years of age, sanguine temperament, had a large indolent goitre which had been developing for the past six years and gave rise to dyspnœa. At the time she consulted me, December 17th, 1838, she was two months pregnant. Spong.[30] was given, and on January 1st, 1839, some improvement having taken place, the medicine was repeated. On February 18th, the amelioration was still more marked, but to avoid losing the effects of the medicine, I gave one dose of iodine.[30] Treatment was suspended until after the birth of the child (June 12th), or rather until July 21st. The condition of the goitre was unchanged, and I prescribed spong.[30], which was followed by marked improvement. On August 5th, a new dose of spong.[24] was given which provoked an aggravation promptly controlled by aconite. By October 20th the cure was complete. (Dr. Renon of Angors, *Bul. de la soc. med. hom. de France*, iv, 428.)

8. Mme. S——, 45 years of age, married, mother of six children, scrofulous diathesis. The goitre had existed for six months, and its course had been steadily onwards; sometimes there was a sensation of tension, at other times a lancinating pain; sensibility to cold. These conditions lasted from three to six days and then there would be a return to her usual health. Spong.[6 and 30] was given alternately for three months and the cure was complete. (Dr. S. B. Barlow, *Am. Jour. of Hom.*)

9. Mme. M——, 25 years of age, of good health, weight 150 pounds, black hair and eyes, had for three years a very large tumor of the neck, causing marked disfigurement. This tumor was nodular, irregular, hard and slightly sensitive to cold. Spong. from the 3d to the 12th dilutions, was given for six weeks with a complete cure as a result. (Dr. Barlow, *loc. cit.*)

10. A. W——, servant, 32 years of age, tall and slender, medium weight, strumous habit, had for several years a tumor of disagreeable aspect, and of a size double that of the neck. It was

hard, nodulated and sometimes sensitive to cold. In other respects she enjoyed good health. She was cured in four weeks under the internal and external use of spong. The remedy was continued internally for one month after the disappearance of the tumor. The disease never returned. (Dr. Barlow, *loc. cit.*)

11. I was consulted on October 8th, 1882, by Mlle. J. D——, a young lady 19 years of age, and of a lymphatic temperament but not scrofulous. She had for four years a large goitre, rather soft than hard, located especially in the right lobe of the thyroid body. Her general health was good with the exception of a slight hypertrophy of the tonsils. Menses profuse. Nervous palpitations. Spong.[30] was given from October 8th, 1882, until May 25th, 1883, the date of my last visit, without my having had any occasion to change the remedy. But according to a rule received from my father, now deceased, I used a variety of dilutions; from the 30th I have gone to the 200th, then to the 12th and 6th, to return finally to the 30th and 200th. The cure remains complete. (Dr. Bernard.)

12. Mlle. F. D——, of Mons, 57 years of age, had for ten years previous to her consulting me (February, 1878,) a very large and hard goitre, composed of the entire thyroid gland but more especially the right lobe. My patient is of active habits, rather corpulent, lymphatico-sanguine temperament, leading, through necessity, a too sedentary life. She is subject to frequent attacks of phlegmonous tonsillitis, in which suppuration could not always be prevented. She suffers also from boils, frequent attacks of vertigo, numerous symptoms of gouty rheumatism, aggravated since the cessation of the menses, which she dates at nine years before. She complains very much of fatigue and ennui and is somewhat capricious and inconstant in the matter of treatment. After giving several remedies, without any marked result, I resorted to the continuous use, on account of the results obtained, of iodide of potash, 5 centigr. in 200 grms. of distilled water, a spoonful every day. Although not cured there is to-day a marked amelioration. (Dr. Bernard.)

13. In a case of goitre which proved obstinate under treatment and in which iodine was given without any result, I gave brom. [30], in water, two dessert spoonfuls a day .At the end of three months

the tumor had disappeared. (Dr. Gauwerky, *Allg. Hom. Zeit.*, 43, 244.)

14. A young girl 14 years of age, blonde, delicate, active temperament, had menstruated for a year when the thyroid gland began to swell and soon attained the size of the egg of a chicken. As in the preceding case a cure was obtained at the end of four months by means of brom. (Dr. Gauwerky, *loc. cit.*)

15. In the *Hah. Monthly*, says M. de Keghel (*Rev. hom. Belge*, ii, 84.) we find cure of a case of goitre by bromine, 2d dec. dil. The tumor was a large one, occupied the right lobe of the gland, and had been developing for fifteen years. The patient was a woman, married, 45 years of age. A marked diminution of the tumor was noticed at the end of the third week, and at the end of three months the tumor was so far reduced that all further treatment was abandoned.

16. Calcarea[3], one grain, given every eight days, cures, in children, in the space of a month, a swelling of the thyroid gland large enough to form a goitre. (Dr. Alther, Hygea, iii, 85.)

17. T——, carpenter, 49 years of age, has had a swelling of the thyroid gland for over ten years, which, developing from both sides is more marked upon the right, extending the entire length of the gland. The tumor measures the thickness of a thumb in depth at its greatest dimensions on the right side, and appears to be formed of a homogeneous mass. He says the tumor appeared when he was 13 years of age. At the time of his marriage, 26 years ago, he used, without avail, for two years a pomade, and since then of an iodide pomade. I began his treatment on June 26th, 1853, by having him take, morning and evening, an hour before eating, ten centigrammes of the 4th trit. of the oyster shell. The same medicine and dose was incorporated into a pomade which he used twice a day. Treatment was continued until January 25th, 1854, with a few intervals. The cure was complete and there has been no return of the disease, now twenty years since the last prescription. (Dr. Imbert-Gourbeyre, *Art. Med.*, xlii, 99.)

18. At the same date as the above I treated a woman for the same affection. The goitre, which was half the size of a medium sized orange, had been growing for fifteen years, but she had never made use of any treatment. The tumor disappeared completely

under the use of calcarea within three to four months. (Dr. Gourbeyre, *loc. cit.*)*

19. P——, aged 10 years, rosy complexion, muscular development, suffered from rheumatism and diarrhœa, with disgust for food. She had had a goitre since her seventh year, treated in vain with iodine and burnt sponge. The tumor has increased but no treatment for six months. It is situated to the left and forward portion of the gland, of the size of a pigeon's egg, soft, reddish, indolent, movable and traversed by distended veins. On May 15th she was given 15centigr. of calc. carb.$^{3\ trit}$, to take every day for ten days One month later the appetite was improved but the tumor was unchanged. Calc. c.^{6}, six drops in 200 grammes of water was given, a teaspoonful to be taken morning and evening. On July 10th the amelioration was marked; the goitre had diminished in volume, and an otorrhœa which had persisted for a year was entirely relieved. Calc. c.^{3}. In September the tumor was still further reduced and had disappeared entirely at the end of the year. (Dr. Goullon, Jr., of Weimar. Die skrofulosen Erkrankungen, Leipzig, 1871.)

20. L. I——, 17 years of age, scrofulous constitution, had suffered with engorged sub-maxillary glands which had suppurated at three different times. Menses appear every six weeks to two months, for the last two years. She had, on October 28th, 1869, a goitre of the size of a chicken's egg, which had first appeared at the time of puberty. The two lobes are separated, the tumor is soft and indolent. The tumor increases in size at the time of menstruation, especially if the flow is scanty; at the same time the respiration becomes more oppressed, so that she is compelled to sit up many times during the night. She was given calc. c.^{3}, 12 centigr., to be taken every morning for twelve days. Three weeks later the menses were more profuse, the goitre did not increase and the respiration was not impeded. The remedy was continued. On December 24th there was a marked decrease in the tumor and the menses appeared at the end of four weeks. Calc.^{6}, six drops in

* I have treated also, says this same writer, six women suffering with this same affection, and after from 3 to 6 months' use of calcarea I have been able to obtain a marked diminution of the goitre. In three other cases, in which I used the remedy for nearly five months, I have failed completely.

200 grammes of water, two teaspoonfuls a day, was given until the end of January, at which date the tumor was still present. Calc. c.[30]. In March only a superficial pointing could be noticed. Calc. c.[200]. (Dr. Goullon, *loc. cit.*)

21. One of the patients of Dr. Pröll, physician at the mineral springs of Gastein, who came regularly for many years to the springs on account of an attack of gout, was also afflicted with goitre. One year he returned completely relieved of the tumor. Interrogated by Dr. Pröll, he said that he owed his cure to powdered egg shells which he had taken every other day—a powder on the point of a knife, allowing it to dissolve upon the tongue. In three months the goitre had disappeared entirely, and, according to Dr. Pröll, the interruption in the taking of the remedy had been a useful thing in the cure. (*Allg. hom. Zeit.*, xxiii, 23.)

22. Mlle. K. L——, 19 years of age, suffered from a large swelling of the thyroid gland, which troubled her when lying upon the back; otherwise she enjoyed excellent health. Old-school treatment continued persistently for a year not only failed to relieve, but, on the other hand, the patient suffered several times from the eczema so characteristic of iodide of potash. Bromine, several doses a day failed to relieve. After several weeks, calc. c.[3], one dose morning and evening, produced in one week a noticeable amelioration and in three weeks a perfect cure. (Dr. Anton Starke, *Allg. h. Zeit.*)

23. M. D——, came to consult me, May 16th, 1858, in regard to his daughter. This child, age 10 years, was of a lymphatic temperament and rosy complexion, subject to colds and diarrhœa. The appetite was capricious, with habitual repugnance to meat. At the age of seven years a goitre first appeared. She had taken iodic preparations and burnt sponge, but the hypertrophy of the goitre continued to increase. For the past six months no treatment had been employed. The tumor was ovoid in form, as large as a pigeon's egg, and situated upon the anterior part of the neck in the left lobe. It was soft, doughy, indolent, movable, traversed with veins, without any discoloration of the skin. As iodine had not produced any effect, calc. c.,[3d trit.] was given, 15 centigr. a day for ten days. At the end of a month the digestive functions were ameliorated but the goitre was little changed. Calc. c.[6], six

drops in 200 gr. of water, a spoonful morning and night was then given. On July 10th marked improvement of the goitre and the general health, while a discharge from the ear (which had persisted for a year) had ceased. Calc. c.^{3}. Amelioration progressed until towards the close of the year when the cure was complete. (Dr. Bourgeois, *Art. Med.*, xxiv, 450.

24. Mlle. L. T——, age 17 years, of a delicate constitution, scrofulous, having suffered with sub-maxillary glandular swelling and abscesses, some of them leaving cicatricial deformities. The menses appeared first in the fifteenth year and after that at irregular intervals of from six weeks to two months. Towards the age of puberty the thyroid gland began to develop by degrees, but progressively, until the 28th day of October, 1859, when it had attained the size of a chicken's egg. The tumor was developed equally in the two lobes, and was soft, movable, fluctuating and indolent. The patient noticed that the gland increased at the menstrual epoch, especially when the flow was scanty; at the same time there was oppressed respiration and startled wakings from sleep in consequence of the sensation of suffocation. Calc. c.^{3}, $^{3d\ trit.}$ 20 centigr. each day for 12 days. Three weeks later the menses were more abundant, and at the 26th day, the goitre had not increased during the menstrual flow and the respiration was free; no change in the tumor. Treatment continued. On December 28th there was a noticeable amelioration in the goitre. The tumor was softer, less distended and prominent. The menses appeared at the end of four weeks. Calc. c.^{6}, six drops in 200 grammes of water, two spoonfuls a day. At the following menstrual period, at the end of January, the tumor was undoubtedly going through a stage of resolution. Calc. c.^{30}. By the end of March there remained only a slight thickening, scarcely noticeable. Calc. c.^{200}. The cure was complete. (Dr. Bourgeois, *loc. cit.*)

25. Mlle. L. X——, age 18 years, came to consult me on October 2d, 1874. She is of marked lymphatic temperament and has been frequently and lately attacked with swellings of the sub-maxillary gland. She has never menstruated, and as a curious coincidence, the same is true of two of her aunts. There is a slight reddish leucorrhœal discharge; dental caries, and nasal pruritus. She came, however, to consult me in regard to a large goitre constitut-

ing a real deformity, the right lobe of the gland being the most developed and the hardest. From the first appearance of the tumor until the present date, about eighteen months, iodine and bromine have been freely used in every form, internally and externally. She had came from an old-school physician into my hands. Two globules, containing puls., were given dry every morning and evening for several days, then an interval of the same duration and a repetition. On November 24th the amelioration was but slight. Calc. c.^{30} was given in the same manner as the above. On December 14th the amelioration was more marked and there was a sensation of twitching in the tumor. Treatment continued. In January, 1875, there was an aggravation in the condition of the tumor as well as the leucorrhœa, the latter being of a more rosy color. Calc. c.^{200}. On February 4th, the conditions were improved, and the remedy was continued except to lengthen the intervals from seven to ten days. The remedy was continued at intervals in the 12th and 200th dilutions, and on July 19th the goitre had entirely disappeared. The cure has remained permanently. (Dr. Bernard.)

26. A. L——, consulted me February 27th, 1879. The patient was unmarried, age 51 years, of a weak constitution, lymphatic temperament, fleshy, vacillating character, hypochondriac. For the past year and a half she had had a goitre of medium size, rather soft than hard, and situated in both lobes of the gland. The skin covering the tumor was covered with numerous flat verrucæ. She had just menstruated after an interruption of two months. Calc. c.^{30}, x gtts. in 300 grammes of water, two spoonfuls a day. On March 13th there was an amelioration and the remedy was given in the 200th. On April 1st, the improvement is still more marked; the patient had menstruated two weeks before, the flow continuing for one week, and since then there had been a pain in the right arm (muscular rheumatism?). Calc. c.^{12}. On May 5th the amelioration seemed less marked; the menses were retarded for three weeks; leucorrhœa staining the linen. Calc. c.^{30}. May 26th she reported that she had had during the preceding week a darkish leucorrhœa; the amenorrhœa still persisted, rheumatic pain in right arm, dyspnœa, râles, epistaxis, the goitre had disappeared. Puls. θ three drops in 300 grammes of water, three spoonfuls a day. The above symptoms were all removed and the warts were much diminished. (Dr. Bernard.)

27. C. R——, age 17 years and a half, came to me on November 5th, 1832, in consequence of a large goitre which interfered with the respiration and caused a great deal of oppression whenever he ascended heights or walked quick, and occasioned during sleep a snoring which prevented his parents from sleeping. He was troubled also, for the past year at least, with chills, night sweats and difficult expectoration; he was also embarrassed with slight stammering and deafness. After vaccination he had had a pustular eruption upon the head. The case appeared to me to call for sulphur, as that substance had saved very promptly some phthisical patients from imminent death. I gave one drop of the 30th dilution, divided into four doses with sugar of milk, one dose to be taken each week. On December 18th, the swelling upon the neck had diminished considerably, the chills and sweatings had disappeared, the cough was almost gone, the expectoration was still difficult, the deafness had diminished but not the stammering. Encouraged by this improvement I repeated the remedy in the same dose. The remaining conditions were promptly removed. (Dr. Peschier, *Bibl. h. de Geneve*, iii, 29.)

28. Ch. de R——, age 15 years, had for some time a swelling of the right side of the thyroid gland. The tumor was round, hard and located in the upper part of the gland. On December 29th, I gave him natrum carb.[12] half-drop dose and repeated the same on the 31st. The swelling disappeared in a short time. (Dr. Wolffin, *Arch. hom.* xii, 2.)

29. M. B——, age 27 years, private secretary of the prefect of Rhoño, had been affected for a long time with a goitre; old-school treatment had produced gastric symptoms, among them being the secretion of a thick, viscous mucus which choked and distressed him at the least movement, interfering also with his speech. On May 23d, 1834, I gave bellad., which removed the gastric distress and on the 28th natr. carb. was given for the engorged gland. On the 20th of June, the cure was complete and has remained so until this date. (Dr. Desguidis, *Bibl. h. de Geneve*, v, 369.)

30. A woman, 40 years of age, was attacked at first with cardialgia and finally with a hard, indolent swelling of the left lobe of the thyroid gland. Following this she had alternate attacks of chill and heat, a violent pain in the entire left side of the

head, from the neck until the vertex and occiput with evening aggravations and extending into the night, head hot, congestion of the head, redness of the left cheek, acceleration of the pulse. The tumor of the neck is sensitive to the touch, quivering at the slightest approach. Bellad. θ, 6 gtts., in a little water, five drops, four times a day. Under this remedy the disease was arrested, remained stationary for two days and then advanced to a cure. (Dr. Griessel, *Hygea*, ix, 432.)

31. Mlle. X——, a student at the Ursuline Convent, at Mons, consulted me in October, 1877, for an obstinate goitre which she had had for over a year, and which had resisted all traditional treatment. She was 15 years of age, lymphatic temperament, good constitution, and with a tendency to obesity; menses feeble; she is also subject to eczema. The tumor, which is rather soft than hard, is located in the two lobes of the thyroid gland, but more especially in the right one, having approximately the form and volume of a turkey's egg. For several months I used the remedies usually given for this affection (puls., calc., iod., spong., sulph., etc.). The only result was an occasional apparent amelioration, which was neither marked nor durable. On May 28th, 1878, I gave lapis albus$^{3d\ trit.}$, 15 centigr. a day for ten days with an interval of five days. From this date the goitre began to diminish rapidly. I continued the remedy until July 20th, when the cure was complete. In March, 1879, there was a tendency to return which was happily prevented by the same remedy. In June, 1880, there was a new return which was controlled by lapis alb.^{13}, and since then there has been no return. (Dr. Bernard.)

II. REFLECTIONS.

The observations given above are not all of the same value. Nevertheless, taken together, they are sufficient to attest the efficacy of homœopathy in the internal treatment of idiopathic goitre.

We are not always careful enough to bring out and preserve clinical facts of this kind. I know very well that simple goitre is oftentimes only a benign affection, easily borne aside from the slight deformity which torments the pride of the patients. But the evil of which we speak manifesting itself in the form of a tumor, a modification of its volume is easily appreciated by the

observers. Educated or non-educated, everyone can appreciate, everyone can seize upon the life the material, of the fact of the cure. Now how many persons are there who do not ask in advance for a cure. This is more marked than ever in our present age of scepticism and materialism. There is then, in our opinion, a powerful incentive to propagate, through the largest extent of publicity possible, the cases of analogous cures.

Allow me, however, one general remark upon the facts which I have collected. Very often a remedy which fails in the small dose, benefits when given in larger doses; and conversely the opposite may be true, without our being able in the majority of the cases to find out the reason *why*. Again, when a remedy seems to be well indicated, that is to say, when it is completely homœopathic, we ought not to abandon its use before we have tried it in small, medium and large doses; before running through the entire posological scale, in order to test in some degree the individual susceptibility of each patient. We ought to act thus so that a second Hahnemann may complete the worthy work of the first in formulating precise scientific rules upon the question of the dose and the duration of the action of the medicines.

These *desiderata* of our method have influenced unfavorably the description of the internal treatment of simple goitre as well as many other diseases.

Bœnninghausen gives twenty-one remedies according to the degree of importance attributed to them: Iod., spong., ambr., natr. c., calc., carb. anim., merc., natr. m., plat., ammon., bell., caus., con., dig., kali c., lyc., mag. c., pet., phos., silic., sulph. Jahr's classification differs slightly. He places in the first rank: brom., iod. and spong.; in the second, ambra., ammon., calc., caust., hep. s., lyc., natr. m., staph.; in the third, aloe, carb. an., con., dig., kali c., magn. c., merc., petrol., phos., plat., silic., sulph.

Ruddock calls attention to the iodide of mercury and apis mel.

I have come to the conclusion, says Hughes, that in every recent and soft goitre, iodine is homœopathic and will aid in small and infinitesimal doses in removing it; when, on the other hand, the tumor is hard and nodulated, the remedy acts by its dissolvent properties and ought to be administered in massive doses or applied externally (the best form being an ungnent of the bi-iod. of merc.).

Hale cites iod., baryta, urtica., phyt., (?) and podop.?

M. Jousset (Elements de medicine pratique), says: "Iod., kali hyd., spong. and calc. c. are the principal remedies for goitre. Hepar sulph. and puls. should be added. I administer iod. and spong. alternately, giving one for one month and the other for another month. If one remedy proves more efficacious, apparently, than the other, I continue it alone. I give repeated doses of the medicine, a spoonful every two hours, generally in the 6th dil. If there occurs a slight pain in the goitre, I suspend the medicine and obtain then a great diminution of the tumor. At Geneva, iod. of potass. is given in very small doses, a few centigr. in 200 gr. of water, a spoonful every day. Each portion is followed by a rest of eight to fifteen days; this method has given good results. The employment of calc. carb. is traditional in the treatment of goitre; Prof. Imbert-Gourbeyre has reported cures obtained by the use of egg shells and calc. carb. continued for several weeks, in the lowest triturations."

Other remedies have been recommended, such as lapi albus, ferrum, etc.

I will not speak here of the special characteristics which lead to the choice of one or the other medicine, since this would need a book instead of a simple paper.

I will mention, however, the indications given by Dr. Criard * for spongia and iodine: Spongia is of service when the goitre is large and hard with stinging or shooting pressure.

Iodine, when the goitre is hard and there is a sensation of constriction in the tumor.

But I must close this paper with the statement that my aim has been to bring together some materials which might serve in the future to establish upon a solid base the homœopathic therapeutics of simple goitre.

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* L'Homœopathie mise à la portée de tout le monde, 3e edit., Paris, 1863.

PARALYSIS OF THE RADIAL NERVE FROM COMPRESSION.

BY H. J. EVANS, M.D., ALTOONA.

Mr. B——, age 23, occupation, brakeman. One night he fell asleep on the tender of his engine, with his right arm under his head; after sleeping about half an hour he awoke and made an attempt to use his arm, but to his surprise found the wrist of that member powerless, although he never had experienced any similar weakness. He remained from work for a few days, but finding his arm not improving he applied for medical aid. I placed his forearm in splints, keeping the wrist immovable, gave plumbum$^{6\ x\ trit.}$, three powders daily. In six days he had partial flexion and extension, and in ten days he was able to use the disabled member.

HOMŒOPATHIC REMEDIES IN MALIGNANT GROWTHS.

BY H. J. EVANS, M.D., ALTOONA.

Rev. G——, age 65, had been a sufferer for eight years from a malignant fibroid tumor, stone-like in character, involving the whole side of his face, extending from the sub-maxillary gland to the superior border of the right malar bone, preventing him from protruding his tongue beyond his front teeth. The tumor continued to grow till he was obliged to retire from his profession; and the pain became almost intolerable from pressure on the branches of the inferior maxillary nerves; the growth encroached on the pharynx, causing deglutition to be difficult and painful.

When the tumor was first noticed in the sub-maxillary gland, his physician advised no interference, assuring him that it would soon disappear, at the same time prescribing powders, each containing one-third of a grain of sulphate of morphia. The patient continued this anodyne till he consumed a one-eighth ounce bottle of it in two weeks. Growing tired of that treatment, the patient was advised to try homœopathy.

His anodyne was taken from him and bell.^{6x} substituted. It had the effect of antidoting the chronic symptoms of the morphia and kept the growth in abeyance for a while. Besides the bell. he received conium, merc. sol., rhus., nux vom. ars., ars. iod.

Finally, I suggested operative means of removal to prevent death from strangulation. I took the patient to two of our most skillful homœopathic surgeons but received little encouragement as to the risk of removal. As a last resort I endeavored to produce suppuration. After two weeks poulticing and hepar^{3x}, a small quantity of pus escaped, leaving the tumor untouched; the patient was then given silicea^{12x}, and in three weeks the tumor was diminished to one-third its original size, and in six months he was able to attend church and preach occasionally.

DISCUSSION.

Dr. Lee of Philadelphia, objected decidedly to the therapeutics as laid down in the paper on laryngeal phthisis as not in strict accordance with the law of cure. When we administer the internal remedy, and at the same time apply morphia or boracic acid locally, what assurance have we that the homœopathic remedy is doing good. Dr. Lee admired the industry of the gentleman, as shown by the paper presented to the society, but he thought the treatment suggested innovations that should be checked.

Dr. Morgan rejoiced in the progress made by members of our school in handling instruments of precision for diagnostic purposes, but he could not forget that these same cases which are recommended to be treated by remedies applied locally are only the like of those treated by the "Fathers of Homœopathy" without a knowledge of what they were curing. Surely a knowledge of the disease is an inferior question to the cure of it. Dr. Morgan did not wish to be understood as belittling or undervaluing the use of these instruments of precision, in fact he made it his business to keep abreast of the times in their use. By means of the laryngoscope, he hoped to be able to add something to the question of the therapeutics of laryngeal diseases. A gentleman with the long continued habit of hawking in the morning was taken with hæmoptysis. An examination showed a laceration in the right sinus of the larynx. The use of arnica relieved it. The probable

cause of the trouble was the iron in the foundry in which he worked. Swelling and congestion of the arytenoid cartilages was noticed. Ferrum phos.[30] was prescribed with success.

Dr. Ivins said that he was always anxious to cure with the homœopathic remedy when possible. He had had cases in which what was apparently the correct remedy had been prescribed. He had diagnosed the case and administered an internal remedy without curing the patient. In reference to cases of otitis media with suppuration, all have known cases which failed and signally. The internal remedy has been exhibited but failure ensues. These cases may be cured by the local treatment, together with the constitutional, and that without producing any unpleasant symptoms. It is believed that in these cases the otorrhœa has been destroyed and some internal disorder left. He had not observed in his cases any unpleasant symptoms to follow local treatment.

Dr. Lee asked if this was not an acknowledgment of our weakness. Is it owing to deficiencies in our materia medica, or to insufficiencies in the law of cure.

Dr. Farrington believed in the creation of comparisons of special branches, but with the increase in experience comes also increase in responsibility. Specialists have sins to answer for. One of these is the failure to improve the materia medica in the direction of their specialty. As they do this, they use these adjuvants the less. There are two duties which the physician owes, one is to homœopathy and the other is to his patients. If he can not cure with homœopathy, he may resort to adjuvants, but it must not be said that homœopathy fails. This he must occasionally do as there are not sufficient resources in the materia medica.

Dr. Ivins said that he agreed with Dr. Farrington, and that as soon as he could cure his patients with the internal remedy alone, he would abandon local treatment.

Dr. Morgan paid a glowing tribute to Dr. Woodyatt, a specialist, who had improved the materia medica. He had introduced argentum nit., physostigma, and lilium tigrinum into ophthalmic practice.

Dr. E. Hasbrouck of Brooklyn, in discussing the subject

of albuminuria, referred to a valuable paper by Dr. Dillow, published in the August *Hahnemannian*. Fuchsin is a remedy which has been known to produce albuminuria when given hypodermically. He (Dr. Hasbrouck) had used the 2x and 3x trits. in albuminuria, and so far had never failed to reduce the amount of albumen in the urine, but that was all the good it did. In albuminuria after scarlatina, asclepias syriaca has cured more cases than any other remedy.

Dr. Bartlett asked if the gentlemen present considered it any more homœopathic to use fuchsin in every case of albuminuria, asclepias in every case of post-scarlatinal nephritis, than it was to use morphia as a routine measure to relieve pain. Cure-alls are recommended for many diseases. Take chorea as an example. If a dozen physicians are questioned regarding the treatment of chorea, each one of the dozen will have a different remedy to cure every case. One cures every case with calabar bean, another with mygale, etc., yet each remedy when put to the test is deficient, sadly so. Is such prescribing any better than the routine use of palliatives?

Dr. Hasbrouck did not recommend fuchsin as a routine remedy. He had only been experimenting with it to see what it would do, and how far it would prove curative in albuminuria. A case of albuminuria was reported in a recent journal, in which all treatment failed to cure. The patient followed his occupation in a factory where fuchsin was used as a coloring matter. As soon as the cause was removed the patient made a quick recovery.

Dr. B. W. James asked if remedies might not have key-note symptoms indicating them in certain diseases.

Dr. Lee was glad to hear Dr. Bartlett grappling with such an important evil. It is a common thing to employ remedies to cure certain cases because it has cured one case of that disease.

Dr. Ivins, speaking of goitre, said he had obtained the best results from graph. and fluoric acid.

Dr. Morgan asked permission to exhibit some preparations of gluten, the internal exhibition of which constituted a valuable remedy in the treatment of constipation. The preparations are gluten flour, gluten crackers and the fruit-food. Cases were related showing the value of these articles in this troublesome

symptom. Gluten suppositories were also exhibited. These are placed in the rectum. Referring to the paper on phthisis, Dr. Morgan said that amyloid degeneration of the liver, spleen and kidneys might occur in the later stages. When in the last stages of phthisis there is diarrhœa and œdema of the feet, an examination of the urine will be sure to reveal the presence of albumen, showing the existence of amyloid degeneration of the kidney.

Dr. H. C. Allen of Ann Arbor, said that Dr. Morgan had presented some preparations for the mechanical or hygienic treatment of constipation. Would it not be well to look at the fact that treating our cases with one kind of food is pretty much the same thing as giving the same remedy to all cases of disease of the same name? At the American Institute meeting, in the discussion on infant feeding, one man used Ridges' food, another Mellin's, another condensed milk. No one had had any failures. Is this the right thing? Let us stick to our principles. They will not desert us if we do not desert them. There is nothing more certain than that the "sure cures" are of all cures the most unreliable.

Dr. Bartlett said that he had examined the urine in five cases of phthisis presenting the symptoms mentioned by Dr. Morgan, but he had found no albumen.

Dr. Morgan replied that he made the statement on the authority of Prof. Tyson.

Dr. Bartlett was led to make these urinary examinations through remarks made by Tyson in a lecture delivered several years ago.

REPORT OF THE BUREAU OF SANITARY SCIENCE.

Dr. J. F. Cooper, chairman of the Bureau of Sanitary Science, stated that no papers had been presented by the members of this bureau, so that he had no report to make.

On motion, it was decided to permit a general discussion on subjects pertaining to sanitary science.

Dr. E. A. Farrington spoke upon the subject of sewer gas, giving an instance in his own house where he found it to be impossible to get rid of this unpleasant guest. He had the drainage of the house investigated and found different conditions of insufficiency. He removed all the traps from the main drain. Then a pipe four or five inches in diameter was run from the extreme of the house drain up above the roof. As the culverts are not air-tight, there is ventilation from the drain out through the roof. If there is a trap on the main drain, then all that pipe from the trap to the rear contains dead air. Each water closet was given its separate trap and ventilating pipe. It is well to have the ventilating pipe carried up through the kitchen chimney and above it. The warmth of the chimney caused the sewer gas from the sewer to rise in the drain and at the same time drew the air from the house, carrying the sewer gas entirely away from the interior.

Dr. B. W. James said that if Dr. Farrington wished to get rid of sewer gas he would have to induce his neighbor on each side to adopt the whole plan, for if the division walls were as porous as they are in most city houses he would find the sewer gas from their houses invading his own. He knew an instance in which a family could not even guess how small-pox entered their house until they found that there was a communication between their own house and one adjoining by means of a space between the rafters, and that the family in the adjoining building had small-pox.

If Boards of Health could be at all relied upon to do their duty they would look after the health of healthy people, but they do not seem to attend to this. Nine-tenths of the plumbers have no idea of sanitary science at all. In Eastern cities, especially in England, there is an organized system, by which the owner of a building is compelled to give the renter a certificate from a sanitary engineer that its drainage is sanitarily perfect. If he cannot, it will be hard to rent his premises at all. If such a system could be introduced here there would be no need of laws upon the subject. If renters would generally refuse to rent a house unless such a certificate was given self-interest would work the reform.

The time for adjournment having arrived, further discussion on sanitary science was postponed until the evening session. The

visiting members of the society were then escorted to the rooms of the Library and Reading Room Association in accordance with an invitation extended to them during the morning session.

The society was called to order in the evening by Dr. Hugh Pitcairn, in the absence of the President.

Dr. B. W. James, continuing the discussion, said that the ventilation of traps was not properly understood. For instance, in ventilating school rooms, where the best talent is brought into play, one would suppose that the best attention would be paid to ventilation. In some of the rooms hot air enters from the heater, and instead of being diffused over the room passes up the wall and out of the ventilator, which has been placed on the same side of the room as the heater instead of the opposite.

Dr. T. M. Johnson said that it seemed to him that the best way for us to disseminate a knowledge of sanitary science was to become sanitary cranks or preachers wherever we go

Dr. J. F. Cooper, speaking on the question of a pure atmosphere, said that persons having a large chest expansion found the air at the sea level best suited to them, while the air at a higher level would be appropriate for those who had but a moderate or little chest expansion. In proportion as we mix the air with noxious material, so we lessen the chance for animal life and increase the opportunities for the development of disease. In the construction of buildings it is necessary to construct them so that the inhabitants breathe air in as near the natural state as possible. Our buildings that were built in the early days needed no ventilation. They got air as made by the hands of nature. Offal from animal matter was not taken up by sewers. In the construction of hospitals everything should be constructed with special reference to good drainage. In some of the hospitals of Europe the air is kept changing by means of a fan in constant motion. Not enough attention is paid to the removal of the heavy gases which contaminate the atmosphere. Many persons, when in a crowded assemblage, cannot resist the drowsy influence of the atmosphere surcharged with carbonic acid.

Dr. L. H. Willard thought too much attention was paid to the impure air we breathe and too little to the impure food we eat as a source of disease. He gave an account of an epidemic of

typhoid fever in his city, which was finally traced to the milk distributed by a milkman who watered his milk from a well into which a vault higher on the hillside drained, but this was not discovered until many of the citizens had had the pipes removed from their houses under the idea that sewer gas was the cause.

Dr. B. W. James drew attention to the carelessness at seaside resorts in placing of wells, and the diseases which often result from the vitiation of the drinking water. He discussed the subject of hospital ventilation, upon which Dr. Cooper had touched. He preferred the use of the fans, and told how pure air was introduced into the Pennsylvania Hospital without creating drafts. This he regarded as the most perfect system. He abhorred drafts, either warm or cold. It was a fact, not generally known, that as many colds come from drafts of hot air as from drafts of cold air, and one fruitful source of colds is the practice of sitting by a register and allowing the blasts of hot air to steal over the body.

Dr. Trites said it made one feel that it was almost impossible to have a proper house, or live under proper sanitary conditions, when he listened to such a discussion as that going on around him. He believed that the day would come, not by their becoming sanitary cranks or sanitary preachers, but sanitary voters, when proper sanitary conditions of living should be secured. He thought it feasible to have a sanitary engineer, not only in Philadelphia but in every county of the State.

Dr. A. R. Thomas remarked, that before we can regulate these matters with precision we must know more about disease itself, its causes, modes of propagation, etc. Within a comparatively recent period there seems to have been an intimation as to the direction in which we are to look for this information. The germ theory of disease which is growing in the estimation of pathologists seems to be the source of many of the puzzling questions. We talk of typhoid fever coming from the milk or from defective drainage, but that does not explain the source of the disease. Until we know more of the germs and the conditions necessary for their development and propagation, we will not be able to accomplish everything. Once knowing the causes, we have it in our power to do more toward arresting the course of these diseases.

REPORT OF THE BUREAU OF PATHOLOGY AND PATHOLOGICAL ANATOMY.

Dr. A. R. Thomas, chairman of the Bureau of Pathology and Pathological Anatomy, presented the following papers which were accepted and referred to the Publishing Committee:

Some observations upon the Structure, Method of Development, etc. of Living Matter in the Animal Tissues, by W. C. Goodno, M. D.

On the Pathology of the Blood, by A. R. Thomas, M. D.

SOME OBSERVATIONS UPON THE STRUCTURE, METHOD OF DEVELOPMENT, ETC. OF LIVING MATTER IN THE ANIMAL TISSUES.

BY W. C. GOODNO, M.D., PHILADELPHIA.

By the term "living matter" histologists understand, obviously, matter which manifests the properties of life; the two great indications of which, in the cell, are growth and reproduction. It has been of late years, by common consent, applied to the nuclei of cells, it being believed that of the cell constituents, it is within the power of the nucleus alone to appropriate and transform pabulum into cell substance or to give birth to a new cell. Like all great facts this one has been approached through long research, with which many names may be honorably mentioned, but to Virchow and Beale belongs the meed for having given to us the essentials of our present knowledge. The necessity of nuclear matter in the composition of all cells was shown; its physiological agency in the growth and repair of the cellular substance and its primal action in the production of new cells. The application of this term to a portion of the cell leads to the inference that other portions may be non-living or dead and so one of the greatest of observers—Beale—believes, and first advanced, in his noted lectures before the Royal College of Physicians, London, in 1861, a view which has been adopted by many, and which I believe he still

holds. Many, however, have objected to believing that the greater portion of the cell substance, possessing high vital endowments, is dead, or that the periphery of the nucleus—matter which is in a transition state from that which possesses such positive vitality, to that in which all function resides—is dying. It is in this extra nuclear substance or "formed material" of Beale, that function resides; and surely the functions of a complex organism like ours cannot be performed through the agency of dead matter. In the physiological process of cellular nutrition, devitalized matter exists, in small amount, in all cells; the location of such matter, however, as well as the precise character and method of its removal, are still problems inviting investigation.

Pathologically, this "living," or "germinal" or "formative" matter is the source, aside from the white elements of the blood, of all new adventitious cellular elements, whether developed through the agency of the inflammatory process or otherwise. The morphological characteristics of the cell have always invited much interest, but beyond the existence of matter in two states: one, the "living," usually spherical and situated centrally (nucleus), within which may be arranged newer centres of development (nucleoli); the second, surrounding the first and believed by some to be "dead," and by most to be deficient in the two specified characteristics of "living matter;" little has been learned until within the present decade. These more recent advances are due to the labors of Heitzman of Vienna, now of New York; Stricker, of Vienna, and Klein of London (results of special methods of investigation, not read). To economize time I will formulate them into the four following propositions:

First, in importance of the histological conclusions drawn from studies conducted mainly as detailed is, that living matter is arranged in all tissues in the form of a reticulum (or network).

Second. That the reticulum of each individual cell is continuous with the reticulum of each adjacent cell, constituting an uninterrupted network permeating the tissue.

Third. That the genesis of cells, in many instances at least, is from solid sprouts developed from the reticular nodes.

Fourth. That there is distributed, in some tissues, masses of germinal matter (plastids, Heitzman.) hitherto undiscovered.

The doctrine of the reticular arrangement of all tissues is, as we have seen, a new one; the eldest daughter of this new family of facts in histo-science.

Possibly as a convenient word indicating, approximately, the structure, the word "reticulum" is as good as we possess, and I shall so use it in this paper; but that it correctly expresses the exact structure of living matter in all tissues, I do not believe. Examine liver cells in sections made in various directions, with a power of 1,000 diameters, and in each cell which has escaped injury there will be seen by the casual observer a general network appearance of the cell. Upon careful investigation, however, each cell will be seen to present an unbroken line of peripheral substance, the nucleus being outlined by a second uninterrupted line. The enclosed areas, intra-cellular and intra-nuclear, are broken into varying sized meshes, too minute to admit of easy study or description. Some of them seem to present perforations in the cell, others are filled, presenting the appearance of a well outlined ring of solid matter with a filling of material of less consistence, which often seems contracted, leaving an apparent concavity on the surface of the section, but the most noticeable of all is the fact that the so-called reticular threads present an unbroken surface, the continuity of all being perfect, which could not be so were the structure a true reticulum.

If these statements are correct, and they seem apparent, they lead us to suppose the cell, as well as its nucleus, to be surrounded by a closed membranous layer of substance, thus forming two cavities, the intra-cellular and intra-nuclear, each broken up into irregular meshes by septal partitions, and not by reticular threads.

The meshes of the cell are undoubtedly filled with liquid or semi-liquid material-matter entirely devoid of the properties of life. It seems probable, in view of facts to be stated later, that it is the pabulum of the cell, a portion of the blood, possibly altered somewhat by its relation to the living matter, and that it is this material from which the cell *receives* and to which it *gives*. Whether the limiting membrane of the cell, which we may call this outer layer, possesses openings or simple porosity I cannot positively state, but thus far I have seen no evidence of perforations of

any kind. If such openings do not exist, all materials passing to and from the cell in process of cell nutrition are filtered through an animal membrane, which becomes a wall of defense against intruders. If the modern pathological inclinations to dignify the cell rather than the blood, is correct, as well as our germ theory of disease, the importance of this "wall of defense" may grow in our eyes.

I have cited the liver cell as an example simply for the reason that it is a tissue particularly easy of preparation. Similar results may be quite as easily obtained in preparations of epithelium.

The *arrangement* of the reticulum, it may be stated, is not the same in all structures, or in the same character of tissue in different situations (which is one of the facts opposed to the theory that the reticulum is due to the action of reagents). This can be quickly demonstrated in the renal epithelia; for while the majority of these cells manifest the appearances described, others present a peculiar rodded appearance, as if the cell, in its long diameter, were perforated with rods placed parallel to each other, the use of higher powers and better methods show these rods united laterally by processes of tissue more delicate than themselves, resulting in the formation of oblong spaces instead of the usual circular or polyhedral.

That the living matter of cells possesses considerable elasticity is evident from the rapid changes in size of the cell, with increase in size of its meshes during certain pathological states. This change may be rapidly induced, as first shown, quite recently, by Spina and Stricker, as the result of the application of the electric current to certain glandular cells. In their experiments they selected as a subject for investigation the simple flask-like follicles found in the skin and membrana nictitans of the frog. These follicles are lined with a single layer of lower epithelial cells, which, in the normal state, occupy only a small portion of the lumen of the follicle.

If a small piece of the membrana nictitans be removed and arranged upon the stage of the microscope for the passage of the electric current, and a mild current is passed through the membrane, the cells are observed to swell and encroach upon

the lumen of the follicle, the degree of swelling depending upon the intensity of the current. If a very mild current is employed the cells are observed to swell slighty and gradually return to their normal size; this may be repeated several times when the cells seem to lose their power of contraction and die in their expanded condition, at times completely filling the lumen of the follicle.

If a strong current be used the same result is reached immediately. While these changes in bulk are taking place, there occurs, what I believe has not been described, viz.: a *granular* appearance with *indistinctness*, in other words a cloudy swelling, a pathological condition induced by the irritant effect of the electric current. If the current has been slight, as we have seen, the changed condition of the cell does not persist long enough to permanently injure the cell, and it rapidly returns to its normal condition. On the contrary, if the current is of sufficient power the living matter is devitalized.

Our second proposition was, that "the reticulum of each individual cell is continuous with the reticulum of each adjacent cell, constituting an uninterrupted network permeating the tissue;" according to C. Heitzman furnishing sufficient grounds for the demolition of the doctrine of cells.

This proposition is not as easy of demonstration as the foregoing. In the adult tissues, prepared by the methods most in vogue prior to the present time, and, in fact, used by the vast majority of histologists to-day, such connecting threads are not visible and their existence is denied by good observers.

I have found them easiest of demonstration in lymph glands, where each lymph corpuscle is connected not only with the gland stroma, but with its neighbors, uniting all into a continuous structure.

Notwithstanding the clear demonstration of a system of union of tissue elements, I feel safe in hazarding the statement that the doctrine of cells will probably never be successfully controverted. Even if there exists a sufficient inter-communicating material to weave all into a unit, tissues are still composed of elementary bodies possessing definite form, which are the more conspicuous the more we make use of agents which produce the minimum

degree of change during the process of preparation. These cells will always remain the most prominent objects for observation in sections from most of the tissues, especially for the reason that we fail to discover the intercellular bands in many specimens, even when most carefully prepared according to proper methods. That the failure occurs especially in the well developed adult tissues, and a special prominence of these bands is to be observed in growing structures, would seem to indicate their prominence during the period of cellular development or multiplication, with perhaps a more or less complete disappearance at the period of complete tissue development. True it is, however, that in most tissues these connecting threads are of sufficient delicacy to allow of the ready falling apart of the tissue into cells, leaving little or no trace of the connecting substance.

Our *third proposition* is, "that the genesis of cells is, in some instances at least, from solid sprouts of the reticular nodes." This may be most satisfactorily demonstrated in sections of the lymph glands, as shown first in certain researches made under the direction of Dr. Heitzman by one of his pupils, Dr. Johnston of Kentucky, and incorporated in his Microscopical Morphology of the Animal Body.* By the usual means of preparation, sections from a lymph gland manifest a very delicate myxomatous reticulum, the meshes of which are filled with lymph corpuscles, quite uniform in size, and presenting a granular appearance. They lie clustered together without an apparent bond of union between them. In tissue treated as described, however, the picture is quite different, the threads of the myxomatous reticulum (in reality mostly septa) manifest themselves, a reticulated structure—a reticulum within a reticulum. Scattered over the surface of these myxomatous plates and threads are granules varying much in size and appearance and situated especially at the junction of two or more of the threads of this internal reticulum. The smallest are barely discernible with a high power (immersion $\frac{1}{10}$), and appear imbedded in the surrounding tissue as simple swellings or increase of bulk from union of the reticular threads. As their bulk increases they project more and more from their tissue bed

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J. D. Vail & Co., New York, 1883.

and begin to manifest structure, first granular, then a well developed reticulum, which also permeates the newly formed nucleus. After the acquirement of a certain size the new cells seem to be pushed off from the parent tissue but still retain connection with it through the medium of from one to several exceedingly delicate threads which seem to exist until the full attainment of the maturity of the cell, when in most instances, at least, they are severed and the new cell is ready to wander. Such in short is the history of the development of cells as studied in the lymph glands.

The *fourth proposition* is that there is a distribution of "living matter" through the tissues not heretofore appreciated. My own investigation under this head have been thus far limited, and I will dismiss it with a word.

Dr. C. Heitzman is the author of this proposition. It relates especially to the ordinary connective tissue, in which he claims the existence of large numbers of germinal centers, which by ordinary methods of investigation are not appreciable. While spending an afternoon with him some time since he exhibited specimens to me which seemed to corroborate the proposition. But of this, perhaps, more at some future time.

ON THE PATHOLOGY OF THE BLOOD.

BY A. R. THOMAS, M.D., PHILADELPHIA.

From the relations of the blood to all *pathological* as well as physiological phenomena of the body, a knowledge of the normal as well as the morbid conditions of this fluid becomes of great interest and importance. Unfortunately, however, less is positively known upon this subject than the present advanced state of our science might lead us to anticipate. From the rapid strides, however, being made in all departments of pathology, we may hope that the time is not far distant when hæmal pathology may be as well understood as other branches of the science.

In the past, frequently when pressed for an explanation of certain disturbed conditions of the body, we have been forced to attribute them to derangements of the liver, to colds, to impurities of

the blood, etc., mere subterfuges for covering our ignorance and wholly inadequate for explaining the case under consideration. With better knowledge of the nature of disease, we may hope in the future to be better able to satisfy our patients as well as ourselves.

Let us notice briefly those changes of the blood with which we are best acquainted at the present time. Blood, in its normal condition, consists of a colorless liquid (the blood serum or plasma) in which are floating the corpuscles, red and white. The former give the red color to the blood, and are the great carriers of oxygen and carbonic acid. Held in solution in the liquid portion are found albumen, fibrin, fat and certain mineral substances, as chlorine., sulph., phos., potassium, sodium, lime, magnesium and iron.

It is well established that various changes in the proportions of these several elements are compatible with perfect health. Thus the proportions will vary in the blood of the arteries and veins; in blood of different organs; also after the ingestion of various articles of food, as well as of numerous chemical substances.

The pathological changes of the blood, may involve the corpuscles or any of the constituents of the watery portion, or consist in the introduction of new substances from without.

The Corpuscles.—The blood corpuscles, both red and white, are subject to variations as to their number, and in their proportion to the blood serum. With great decrease of red corpuscles there will be found anæmia with its attending phenomena: inanition, chlorosis, etc.

Increase of the *white* corpuscles in the blood in connection with a diminution of the red, may be a transitory condition or may constitute an essential disease known as *leucocythæmia.* The degree of increase of white corpuscles is very variable. Instead of one white to fifty red, they may be increased to one to ten, or even one to two.

The source of the increased white corpuscles is believed to be from the spleen, the lymphatic glands, from disease of the marrow of bones, or from the tonsils and follicles of the throat and intestines.

The symptoms attending this condition include a sense of

fullness in the abdomen, anæmia of the skin and mucous membranes, shortness of breath, general weakness, dropsical symptoms and hæmorrhage. The result is always fatal.

Changes in the Constituents of the Serum of the Blood.—Among the most important of these are changes in the amount of the albumen. Increase of this substance above the normal proportions may temporarily exist, but can scarcely be considered as pathological. Diminution is of much more serious importance, particularly when resulting from Bright's disease of the kidneys. As a result of this condition we find great disturbance of exos. and endosmosis, impaired nutrition, dropsy, and from the usually associated uræmic condition, nervous disturbances and frequent coma or convulsions and death.

Changes in the amount of *water* in the blood may also occur. Drastic purgatives, diarrhœa, cholera, etc., may result in a reduction of the water, inducing thirst, diminution of all the secretions, impaired vision, shriveling of the skin, muscular pains and frequent cramps.

Increase of the water of the blood may result from various causes, the most important of which is loss of blood and albumen hence favoring the development of dropsies and other morbid phenomena.

Changes in the amount of *fat* and *fibrin* are known to occur, but these have, as far as at present known, no important pathological relations.

Changes in the proportions, as well as in the combinations of the several mineral constituents of the blood, constantly occur, but of the pathological importance of these little is known.

Such are the more marked changes in the normal elements of the blood. We now come to consider the introduction of certain foreign substances, all of which exert important influences upon this fluid, as well as upon the whole organism.

1. **Cholæmia.**—Bile may appear in the blood under two conditions: First, from absorption of bile already formed in the liver, but which, from obstruction of the ducts, is prevented from passing into the intestines. Second, from a transformation of the coloring matter of the blood into bile pigment in the vessels. The causes of the latter origin of bile in the blood are not well under-

stood. It is known to occur in some cases of intoxication, after snake bites, in yellow fever and in some other conditions.

The presence of bile in the blood, whether arising from either of the above causes, induces well defined and uniform symptoms. Bile consisting of two distinct principals, biliary pigment and biliary acids, the effects of each is different. The pigment dissolved in the serum of the blood is carried into the capillaries, and thus imparts the icteric hue to all of the tissues, as well as the fluids of the body. The urine becomes highly colored, while if the jaundice be of a mechanical origin, the stools assume a white or ashen-gray color, preserving their normal appearance, however, when the jaundice is of a chemical origin.

The deleterious action of the biliary acids is first upon the blood itself, and second upon the nervous and muscular systems, as seen in the diminution of frequency and force of heart-beat.

The temperature is lowered. The continued action upon the nervous system, induces stupor and coma, and occasionally convulsions, or perhaps mental excitement or mania.

Another important modification of the character of the blood, is that in which there is a material change in the proportions of oxygen and carbonic acid. Any considerable increase of the latter, whether inhaled from without or from an accumulation from within, through interrupted respiration and imperfect oxidation of the blood, rapidly induces cyanosis and threatening asphyxia. The amount increasing, death must soon result.

Uræmia.—One of the most serious of all the blood changes is that of uræmia. The kidneys failing to eliminate urea and uric acid from the system, we find this substance rapidly appearing in the blood. The effects of its presence are mainly on the nervous system, producing serious disturbances and early death. Any disease of the kidneys, in which the secretion of urine is more or less arrested, may result in this condition. It may occur in cases of pyelitis, cystitis, stricture of the urethra, diseased prostate gland, or in paralysis of the bladder.

The symptoms of uræmia include headache, disturbed function of the brain, mental inactivity, apathy, drowsiness, dullness of hearing and frequently convulsions. Vomiting is a constant symptom, and diarrhœa will be occasional. The temperature is

generally increased and the respiration hurried. The attack may be gradual in its approach, or it may come on suddenly and with most acute symptoms. The termination is nearly always fatal.

Pyæmia and Septicæmia.—In these conditions we have one of the most important of the pathological states of the blood. A suppurating focus upon the surface or within the interior of the body may afford a source from which may be absorbed certain septic or putrid substances, either directly into the blood-vessels or first through the lymphatics, producing the varied phenomena of this condition, including severe constitutional disturbances: as chill, high fever, profuse perspiration, emboli, metastatic abscess, inflammation of serous membranes, prominent nervous symptoms, prostration and death.

It is in connection with this condition of the blood that we find playing an important part, those recently discovered minute vegetable organisms, lately made prominent in pathology, and destined, probably, to change our views as to the nature of many diseases which have heretofore been shrouded in great obscurity; I refer to those microscopic objects known as bacteria, three forms of which have been recognized: the oval shaped known as bacilli, the globular formed, micrococci, and the spiral formed, the spirilli. Others will undoubtedly be discovered, and each probably produces its own specific influence upon the system.

Here we have opened a new field of investigation for the pathologist, and one that promises to yield rich results. The "germ theory" of disease is already making rapid advance, and is destined to play a still more important part in the pathology of the future.

It is not only in pyæmia that bacteria are found in the blood. The rod-like form, the bacilli, are claimed to be the cause of consumption. In a large number of malignant or serious forms of disease they no doubt play an important part, as in malignant pustule, relapsing, typhoid and typhus fevers, while the whole class of contagious diseases are suspected of arising from different forms of bacteria.

The success of the antiseptic measures employed in surgery have been such as to lead us to hope for no less favorable results at least in the prevention, if not in the cure of many of the most formidable diseases with which we have to contend.

With a knowledge of the mode of origin, of the laws of reproduction, of the conditions favorable for propagation and diffusion of these germs, certainly much may be done to control their disease-producing power, and finally should the investigations of Pasteur ultimately demonstrate the possibility of cultivating and producing a milder form of the several disease germs, and by inoculating the system with the same, protect it from the more severe diseases, as in small-pox; then may we hope to have reached that control over disease that we might expect modern science to achieve for us.

REPORT OF THE BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

Dr. W. H. Bigler, chairman of the Bureau of Ophthalmology and Otology presented the following papers, which were accepted and referred to the Publishing Committee:

Foreign Bodies in the Ear, by Jos. E. Jones, M.D.*

Chronic Suppurative Otitis Media in its relation to Disease of the Brain, by C. Bartlett, M.D.

New Theory of the Physiology of the Middle Ear, by P. Dudley, M.D.*

Relation of Ophthalmology to General Medicine, by W. H. Bigler, M.D.

CHRONIC SUPPURATIVE OTITIS MEDIA IN ITS RELATION TO DISEASE OF THE BRAIN.

BY CLARENCE BARTLETT, M.D., PHILADELPHIA.

Last November I read a paper before the Homœopathic Medical Society of the County of Philadelphia, on the treatment of chronic otorrhœa, with powdered boracic acid. The patients treated with this drug all made quick recoveries, notwithstanding the long duration of the discharge in some of the cases. Occasionally, I would meet with a patient who would express apprehensions that the sudden cessation of the discharge would cause a transfer

* This paper was not received.—Pub. Com.

of the disease to a vital organ. That such fears were groundless, was shown by the brilliant results obtained from the boracic acid treatment.

Chronic suppurative otitis media may produce fatal disease of the brain and its coverings; but it never does so by reason of the sudden cure of the primary trouble, but rather as a result of the extension of the original inflammation to the cranial cavity by direct continuity of structure. A slight reference to the anatomy of the bony structures of the middle ear, will show how readily this may take place. The roof of the tympanum is formed by an exceedingly thin plate of bone, which separates this cavity from the brain. In some instances, it is deficient owing to congenital fissures, in which case, the mucous membrane lining the tympanum constitutes the only structure intervening between the brain and the middle ear. The mastoid portion of the temporal bone contains a large number of cells lined by a prolongation of the mucous membrane of the tympanum, and opening by a number of orifices into the posterior wall of the latter cavity.

On its internal aspect rests the lateral sinus, separated from the cells within by a plate of bone which, in adult life, is very thin. A further examination of the temporal bone reveals the existence of a number of foramina which transmit blood-vessels and nerves from the surface of the body and the cavities of the ear to the brain. From this brief review of the anatomy of the parts, it will readily be seen that any involvement of the mastoid cells or of the upper wall of the tympanum in the inflammatory process of the suppurative otitis media becomes a serious matter, leading, if not permanently cured, to cerebral abscess, meningitis or thrombosis of the cerebral sinuses. Inflammation and caries of the mastoid process are much more dangerous during adult life than during childhood, because in the former case, the plate of bone separating the cells from the cranial cavity is thinner, and the outer wall of the mastoid process, much thicker than in the latter. When in children, the mastoid cells take on the suppurative process, the pus generally finds its way outward as, in that direction, it encounters the least resistance. Children also seem able to stand a greater degree of destruction of bone, than will adults.

In chronic otitis media, producing caries of the petrous and mas-

toid portions of the temporal bone, resides the chief danger to the brain. When the suppurative process within the middle ear has existed for some time, the soft parts may finally be seriously injured and the inflammation spreads to the bone itself. Extension of disease to the bone is favored by any causes which operate to retain within the tympanum the products of inflammation. The greater the pressure under which the discharges are confined, the greater is the danger of caries ensuing. Disease of the brain occasionally follows an acute attack of otitis media engrafted on a previous chronic disorder. To this cause may be attributed the cases of so-called "suppressed otorrhœa with fatal consequences," which were so common in past years, when strong solutions of nitrate of silver were recklessly thrown in the ear. The injection acting as a powerful irritant, produced an acute, and perhaps destructive, inflammation of the tympanum, which by reason of its violence, extended to the cranial cavity. Disease of the brain may follow otitis media without involvement of the intervening bones, when by reason of the destructive character of the disease, the oval or round window is destroyed. There is then direct connection between the tympanum and brain through the peri-lymph and sub-arachnoid spaces. Confined pus, in the tympanum or mastoid cells, may be carried to the brain by the numerous blood-vessels and distributed to the parts.

The brain diseases which commonly occur as a result of neglected ear troubles are localized encephalitis with abscess, meningitis and thrombosis of the cerebral sinuses. The majority of cases of abscess of the brain (which, by the way, is never a primary disease), occur as the result of extension of suppurative processes from the middle ear. The abscess is usually situated directly over the diseased bone, although it may occasionally happen that it is situated deeply within the brain substance itself, and that too with healthy cerebral structure intervening between it and the diseased ear. These abscesses may run either an acute or a chronic course. Acute cerebral abscess sets in with severe headache, ringing in the ears, vertigo, confusion of ideas and vomiting. As in the case of nearly all abscesses of the brain from ear disease, it locates itself in the temporal or occipital lobes, parts of the brain which are destitute of motor fibres. Hence paralysis is

not commonly observed unless the abscess increases to such an extent as to exert pressure on the fibres of the internal capsule. It usually runs its course in from four to twenty days. Chronic abscess of the brain may also result from a suppurative otitis media. Its symptoms will vary according as it is complicated with meningitis or thrombosis of the cerebral sinuses. Usually its onset is announced by rigors, with headache, vomiting, convulsions, etc. These symptoms may pass off, leaving the patient in a tolerably comfortable condition, which may last for some time. Then they reappear with greater severity and finally carry off the patient. In other cases, the early stages of the formation of the abscess give no evidence of the dangerous complication which is about to become a factor of the case. Of the sinuses of the dura mater, the lateral, being in direct contact with the mastoid portion of the temporal bone, is the one most frequently diseased. No symptoms present themselves in these cases, which are sufficient to distinguish the trouble from a case of cerebral abscess. Of course, the stoppage of the circulation in the different sinuses, is manifested in the various tributary veins of the scalp. As a rule, when thrombosis of the lateral sinus comes from ear disease, it is complicated with brain abscess or meningitis or both.

I have now briefly recounted the dangerous consequences which may follow the neglect of a chronic otorrhœa. I think that I have shown that these complications ensue far more frequently as a result of extension of the disease by direct continuity of tissue, than from suppression of the long existing discharge by the proper local and internal treatment.

RELATION OF OPHTHALMOLOGY TO GENERAL MEDICINE.

BY WILLIAM H. BIGLER, M.D., PHILADELPHIA.

Even the most superficial study of the progress of medical science, during the last decades, cannot fail to discover its decidedly analytical character. No one can doubt that a period of generalization will soon follow, but at present the tendency is still toward analysis. Everything must be analyzed. Histological researches,

physiological and pathological, are pre-eminently cultivated. Facts are dismembered, and their ultimate component parts sought; symptoms are divided and sub-divided, and diseased conditions traced back to their remotest origin, if possible, in the indivisible and invisible germ.

The multiplication and improvement of instruments of precision, while fostered by this tendency, has contributed towards encouraging its development by rendering exact results possible. Notable among these instruments is the ophthalmoscope. By it we are enabled to examine, during life, the retina and optic nerve, which are nervous expansions communicating directly with the cerebral contents, which are, in fact, integral parts of the brain itself.

With this analytical tendency, and in a great degree rendered necessary by it, has taken place a division of the domain of medical science into special fields of investigation. Thoroughly to cultivate the whole field has become impossible for any man, and hence independent workers have selected such portions as are most in accordance with their inborn or acquired tastes to cultivate with minute care, while they are content to appropriate the generalized results obtained by workers in other parts of the same field. Thus has arisen that mighty host of specialists that has divided the human frame, its organs and tissues, into so many departments for special study that nothing, except, perhaps, the umbilicus, remains unappropriated! The very natural consesequence of this has been, that in many cases the so-called general practitioner feels himself aggrieved, as if the only duty still left him was to direct his patients to the various specialists, by them to be treated for the ills that may befall their special organs—and to confine himself to such few general diseases that he has perchance come to consider self-limiting and affording but few opportunities to prove his therapeutic skill. It is not to be wondered at that a certain jealousy of specialists should arise, nourished, as it often must be, by the air of condescension, with which they are prone to enlighten the ignorance of the general practitioner. That these things are so, all will confess; that they are to be deplored, all will acknowledge; that they should logically correct themselves, so far at least as the relation between the ophthalmologist

and the general practitioner is concerned, I hope to prove by the following paper:

If we can show: 1. That there are *general* conditions and symptoms which depend upon conditions of the eye, and which can be remedied only by treatment directed to these;

2. That there are certain ocular symptoms that can only be cured by attention to the general condition; and finally,

3. That there are systemic diseases which are accompanied by visible changes in the eye, external and internal, and which are often *first* indicated by such changes; then I think the mutual inter-dependence of ophthalmological science and general medicine will be so clearly evident that there will be no room for jealousy on the one side nor cause for self-glorification on the other.

1. There are some general symptoms that depend upon certain conditions of the eye, and can be remedied only by treatment directed to these.

The most common of this class is that of the headaches—often called neuralgias—that have been found to depend upon muscular and accommodative asthenopia. They defy the best medical skill of the physician, only to be removed as if by magic, by a prescription for spectacles by the specialist. We frequently have headaches of undoubted ocular origin, that are attended with no symptoms referable to the eyes. Pains of a character that usually are thought to indicate uterine disease, such as pain in the vertex and at the lower occipital region, have disappeared after fitting proper glasses to the eyes.

Various nervous complaints are directly traceable to ocular conditions and are curable only by a correction of these. Carter, in his Treatise on the Eye, narrates the case of a young man who was supposed to be suffering from some obscure brain disease, and who in consequence was about having all his prospects in life blighted, but who was entirely cured by concave glasses to suit his myopia.

Dr. Conner, at the late meeting of the Michigan State Medical Society, mentioned the case of a physician in whom astigmatism had so excited the brain as to produce insanity, which disappeared after wearing glasses; and another, where after the errors of refraction had been corrected, epileptic attacks had grown less severe and less frequent. Other instances similar to these have

been recorded, enough to show that a careful examination of the eyes is sometimes absolutely necessary in order to accomplish the cure of symptoms of apparently remote origin.

2. There are certain diseases of the eye dependent upon systemic conditions, and therefore to be remedied only by attention to these.

It can be shown, for example, that almost every tissue of the eye is liable to be affected by disturbance of the sexual organs, either by reflex nervous irritation, or by changes in the circulation or by both. Thus we have blepharospasm often accompanying chorea, and dependent upon masturbation; diseases of the conjunctiva, mainly catarrhal and trachomatous inflammations, usually of a most stubborn kind, from the same cause. Inflammations of the cornea are of frequent occurrence in connection with irregularities of menstruation, and any pre-existing ones are usually subject to exacerbations during the monthly flow.

Mooren relates the case of a woman suffering from retroflexion, with a tumor of the cervix, accompanied at the same time with episcleritis, which latter was markedly aggravated by every local treatment applied to the uterus. He also gives illustrations where simple pustules of the outer genital organs having extended to the mucous membrane of the vagina, produced hyperæsthesia of the retina and great photophobia. The latter condition he found most frequently attendant upon congenital stenosis of the os uteri.

Parametritis, endometritis, retroflexions and vaginitis may affect the muscular structure of the iris, and produce dilatation or contraction of the pupil. The ciliary muscle, or muscle of accommodation, is very liable to be affected by masturbation, also by pregnancy or by lactation. A glance at the venous arrangement of the respective parts will show how any uterine trouble may produce a congestive or inflammatory condition of the eyes, and even lead to total blindness by consecutive atrophy of the optic nerve. The spinal veins without valves, connect with the uterine and pampiniform plexuses and the ovarian veins, through the lumbar and sacral veins. At their upper ends they join with the vertebral and inferior cerebellar veins, and the occipital and petrosal sinuses. Thus the cerebral, spinal, and pelvic venous systems of a woman a rpractically continuous. (Oppercheimer.) Sudden suppression of the menses has

been known to produce temporary blindness and neuro-retinitis, relieved on the reappearance of the flow.

At the menopause many chronic eye diseases are liable to be aggravated, probably from the congestion to the head liable to occur at that time. Thus in chronic choroiditis hæmorrhage into the choroid may occur, and in progressive myopia, detachment of the retina.

Pregnancy occasionally produces, especially towards its close, a disturbance of vision of more or less gravity, that may end in recovery after the first parturition, but may also lead to permanent blindness. It is in the majority of cases albuminuric in origin, but a case given by Loring proves that it may occur independently of albuminuria The failure of vision is likely to recur in each succeeding pregnancy, with a tendency to become permanent. Many cases are on record, illustrating the danger of allowing pregnancy to proceed to full term, where this complication is present, since the ocular lesion is in most cases merely the symptom of some grave constitutional trouble that may result in the destruction of the life not only of the child but of that of the mother also. Dr. Moore of New York had a case of albuminuric retinitis where at the time of the operation of premature delivery at the 8th month, $v=\frac{1}{70}$, and where after the expulsion of the fœtus, vision rose rapidly to $\frac{2}{5}$. In Dr. Loring's case, referred to above, after repeated pregnancies had reduced the vision to $\frac{1}{3}$, premature delivery restored it to $\frac{1}{2}$.

The muscæ volitantes, that so often attend so-called bilious states, is a familiar example of ocular conditions attending disorders of the digestive system. Clinical experience shows that tumors or disease of either the upper or lower jaw, or even irritation from defective teeth, may produce not only conjunctival injection with hyperæmia of the iris, but also grave deterioration of vision, and this latter oftentimes with no disturbance of the eye that is outwardly visible. This amblyopia may affect not only the eye of the side on which the cause of irritation is situated, but also the other eye as well. That these troubles are due to nerve irritation is proved by the fact that when the cause of the irritation is removed the ocular trouble ceases, and the vision may be either partially or entirely restored, and that no other treatment than the removal of the cause will be successful.

Dr. Litten, in his ophthalmoscopic examinations during the last ten years of patients affected with liver disease, has found the following retinal affections; extravasations, mostly in the granular layer; white patches, found, *post-mortem*, to be caused by fatty degeneration; and lastly retinitis pigmentosa.

Systematic examinations of the urine of cataract patients, made in the clinique at Gœttingen, showed that a large percentage had albuminuria and other symptoms of chronic nephritis. The amount of albumen was usually extremely small, but casts in the urine, and hypertrophy of the heart, proved the existence of nephritis. Deutschman believes, therefore, that we must recognize a nephritic cataract, just as we recognize in diabetes the cause of the majority of non-traumatic cataracts in the young. Diabetes may also produce central amblyopia without ophthalmoscopic changes, closely resembling in the subjective symptoms tobacco-amblyopia. An examination of the urine in all such cases is, therefore, of importance. These facts and the marked changes produced in the eyes of those suffering from Bright's disease, to be referred to later, are sufficient to show the connection often existing between ocular symptoms and diseases of the urinary system.

In spite of the pronounced ocular appearances in exophthalmic goitre, Basedow's or Graves' disease, it must undoubtedly be considered one of the nervous system. Its principal symptoms can all be accounted for according to the theories advanced by Sattler and Filshue, by the assumption of a paralysis of certain centres—of the vaso-motor centre for certain portions of the head and neck—of the cardio-inhibitory centre of the vagus, and of the centres for certain associated movements and reflex actions in connection with the eye-lids. The occurrence of undoubted central affections, such as ophthalmoplegia externa, and other nervous symptoms, and its occasional complication with glycosuria would strengthen the central theory, which is further fortified by several *post-mortems* in which central lesions have been found.

The ravages that syphilis produces in the eye are known to all and need only be referred to here. We may have specific disease of the lachrymal apparatus, iritis, choroidisis, choroido-retinitis, parenchymatous inflammation of the cornea, paralysis of the

external muscles of the eye, and disease of the orbit. Their treatment to be successful must be specific.

In connection with an epidemic of febris recurrens, a peculiar form of cyclitis was observed, complicated with slight iritis and exudation into the vitreous. Several cases of hemeralopia of decided malarial origin, with painless enlargement of the spleen and coming on regularly after sunset, are on record, cured by quinine.

The effects of certain medicinal agents and poisons upon the general system are in many cases strikingly manifest in the eye. Thus after large doses of quinine we have all the objective symptoms caused by ischæmia of the retina, while the vision varies from simple amblyopia to total blindness, with corresponding differences in color-perception. The total blindness to light and color are but transitory; but a concentric limitation of the field of vision remains permanently.

The effects of the excessive use of alcohol and tobacco are also manifest in ocular symptoms that undoubtedly depend upon systemic conditions and that can be successfully met only by a course of treatment directed to these latter.

This list might be extended, but sufficient has been said, I think, to make it clear that in the treatment of very many cases the specialist must be guided by a regard for the general conditions of which the ocular symptoms are but a partial index.

3. Again, there are diseases which are first indicated, or their diagnosis and prognosis confirmed, by symptoms of the eye that accompany them. The list of these is not long, but recent researches go to show that the usefulness of the ophthalmoscope as a means of diagnosis and prognosis in general diseases is still capable of development.

The condition of the pupils is a symptom of considerable importance, as will be seen from the following conclusions of Rælhlmann (*New York Medical Journal and Obstetrical Review*, July, 1881, p. 93):

First. If the illuminated pupil does not react to light, while the other pupil does, though not illuminated, the first optic nerve still retains its conducting power, and the failure of the pupil to react is due to a unilateral paralysis of the pupillary branch of the corresponding oculo-motorius, or to some affection of the iris.

Second. If the pupil react to light, in spite of complete blindness, the cause of the latter is beyond the corpora quadrigemina.

Third. If both pupils react during convergence, both motor-oculi nerves peform their function as regards the pupil.

Fourth. If both pupils fail to react to light, either directly or sympathetically, while they contract during convergence, and if there is a certain amount of vision in both eyes, there is some obstruction to conduction in the fibres between the nucleus of the oculo-motorius and the tubercula quadrigemina.

Fifth. In physically weak nervous persons and in maniacal patients, very wide pupils are so often observed that narrow pupils are regarded as an ominous symptom of approaching paralysis. A rhythmical change in the pupils is also observed in these cases, independent of the influx of light, or of the act of convergence.

Sixth. Narrow pupils are peculiar to all diseases which cause a diminution of the cortical function, especially paralytic dementia.

Seventh. Myosis is especially frequent in diseases of the spinal cord and medulla oblongata; in tabes the narrow pupil is immovable to light, but reacts to convergence.

Eighth. Irritation of the sympathetic in its peripheral course, or of its cervical ganglia, causes dilatation of the pupils.

Ninth. Dilated pupils are a very characteristic symptom of impeded respiration from the action of carbonic acid upon the medulla. Contraction of the pupils shows that the highest degree of narcosis has been reached.

Tenth. The pupils are dilated in pressure upon the brain, in brain tumors with choked disc, in chronic hydrocephalus, in hæmorrhages within the cavity of the skull, and in simple distension of the cerebral vessels.

Eleventh. Difference in the size of the normally movable pupils points to an irregular innervation of the sympathetic, due to an irritation, either in its peripheral course or in the central connections in the brain and spinal cord. Mydriasis of one eye, with movable pupil, is a suspicious symptom, pointing to a threatening brain disease, while without a movable pupil, it has no special significance.

The impairment of sight, resulting from retinal hæmorrhage, may be the first symptom to raise a suspicion of atheroma or of

hypertrophy of the heart. As the hæmorrhages depend upon a condition of degeneration, they are of serious import, and may be precursors of cerebral apoplexy. Their recognition, therefore, may enable us to warn the patient of his danger, and so regulate his habits and regimen as materially to prolong his life.

The changes in the eye in Bright's disease are so very characteristic that when found they alone are sufficient to justify a diagnosis, even though no albumen be found in the urine. We have neuro-retinitis, with yellowish-white fatty patches in the retina, and hæmorrhages, together with white dots arranged in a stellate manner around the fovea centralis. The importance of an early recognition of this disease cannot be too strongly urged, and yet the ocular symptoms are often the first to draw attention to the urinary disease.

If we find tubercles of the iris, or of the choroid, the diagnosis of any subsequent obscure disease, as tuberculous, will be rendered highly probable.

The following symptoms will point with almost absolute certainty to locomotor ataxy (posterior sclerosis): The accuracy of vision is not improved in the horizontal position (which is the case in insular sclerosis), and will gradually deteriorate until the blindness becomes absolute. The field of vision is diminished, the retraction taking place first at the outer limit of the field, and progressively extending, accompanied with atrophy of the disc. The disc retains its form and dimensions, but loses its color, the nerve fibres being replaced by a tissue which reflects light strongly; presenting under strong illumination, by the indirect method, a glistening white; under feeble illumination, by the direct method, a bluish or greenish gray color. The margin is sharp and the vessels gradually disappear as vision is lost. The perception of color, especially of red and green, is lost as the atrophy advances. According to Robin it is not lost in cases of insular sclerosis, even when visual acuity is considerably impaired. We have in addition paralysis of the muscles and consequent strabismus and diplopia, ptosis, mydriasis and loss of accommodation and myosis. The pupils at first are unequal and remain motionless under the influence of strong light, and do not dilate in darkness, but do dilate when the accommodation is released, and contract when it is

in action—the Argyll-Robertson pupil. The presence of this, with diminished sexual appetite, and weakness of the grip of the hand, may be sufficient to diagnose ataxy even before the staggering gait takes place, especially if accompanied with an absence of the tendon-reflexes.

In meningitis the ophthalmoscope will detect the optic neuritios even before any other meningeal symptoms become prominent.

Dr. Loring, of New York (*New York Medical Journal*, June, 1882), argues that the trigeminal nerve affords the channel through which disease in the brain is able to set up inflammation in the optic disc. As we have seen, distant peripheral irritations of the fifth pair may cause grave ocular trouble. The ophthalmic branch of the 5th just before it leaves the head, sends back a recurrent branch, which after ramifying over the entire surface of the tentorium, passes on to all the principal sinuses and veins of the centre and base of the head, and has been well called by Luschka, the sinus nerve. It follows that distention of the brain in any direction must act upon some of its filaments. These filaments being centripetal would convey the irritation backward to the Casserian ganglion, or even to the centres of the fifth pair. Thence the irritation would be conveyed outward on the centrifugal fibres to the ciliary ganglion, and thence through the ciliary nerves to the posterior parts of the eye and optic nerve. The recognition of brain complication consecutive on aural disease by the ophthalmoscope is of peculiar importance; since in the ocular appearances we have a guide as to the necessity of opening the mastoid cells, or after they have been opened, as to the advisibility of allowing the opening to close.

Finally, in localizing tumors, clots and lesions of the brain, the ocular symptoms are of the highest importance.

To localize a lesion, according to the defects it produces in the field of vision, we must rememember that owing to the peculiar decussation of the optic fibres, we may have various forms of *hemianopsia*, or blindness of *one lateral half of the retina*. (Ranney.) The *homonymous*, or *crossed* variety indicates lesions affecting the optic tract. The *bi-nasal* variety indicates a lesion pressing upon the central portion of the chiasm.

The *bi-temporal* variety indicates atheromatous degeneration of the circle of Willis.

Both the bi-nasal and bi-temporal varieties are due (as a rule at least) to lesions confined to the anterior fossa of the cranium. If the lesion be within the middle fossa, the optic tracts will be affected, causing crossed hemianopsia, while the motor nerves of the eye may be simultaneously pressed upon, producing more or less impairment of the movements of the eye-ball of the same side.

Amblyopia of one eye can result from lesions involving the optic nerve in front of the chiasm, or from lesions of the internal capsule. If from the latter, the field for color-perceptions will be found to be markedly contracted, or color-vision will be wanting; both eyes may be affected, the most marked changes being found, however, in the eye opposite to the seat of the lesion.

If paralysis in any of its forms co-exist with hemianopsia a valuable guide will often be afforded in determining the extent of the lesion. Thus hemiplegia and paralysis of the motor-oculi nerve of the opposite side, point positively to a leison of the *crus cerebri* which may be large enough to interfere also with the optic nerve, and which will then be attended with crossed hemianopsia. The value of these complications cannot be over-estimated when they exist, because they are of the greatest aid in diagnosis, and often enable the skilled anatomist to positively determine the seat of the lesion. (Ranney.)

From the above facts it must be evident that the science of medicine owes much to ophthalmology, and that if it be willing to waive all petty considerations, and afford opportunity for further research, the ophthalmoscope may become even yet more useful in the matter of diagnosis and prognosis than it has already proved itself. On the other hand, however, it is equally evident that ophthalmology cannot be successfully cultivated as an independent specialty, having its end in itself, but must ever be regarded as subservient itself to general medical science, and its achievements of value, so far as they tend to the advancement of this.

DISCUSSION.

DR. FARRINGTON gave the history of a case which came under his observation, that of a boy 12 or 13 years of age, who suffered from a series of nervous symptoms which led several physicians

to diagnose brain or spinal disease. Mentally, he was perfect. In spite of the injunctions of his physicians he would learn. With his eyes closed, he would stagger. The examination of the case by an oculist showed the trouble to be in the eye. The child was fitted with glasses, and as the eyes improved, the nervous symptoms became modified.

Dr. H. C. Allen thought that specialists were apt to overdo things. In Ann Arbor they would have every third child wearing glasses. Frequently these children come under the care of a homœopathic physician, who, with his remedies, cures the condition for which the glasses were prescribed, and the child is enabled to throw the glasses aside.

Dr. W. A. Phillips of Cleveland, Ohio, said that general practitioners frequently fail in their treatment of chronic otorrhœa. It is a common thing for them to advise patients to let the trouble alone. It is true that some cases will recover spontaneously, but all will not. In the course of a few weeks from the beginning the case becomes as chronic as it ever will be. This is the time that intelligent treatment should be applied. Many a child has died of brain trouble that has been supposed to die from other causes when the brain was the cause. Only recently a physician came to him regarding the case of his little girl, who had had a discharge from one of the ears for six months or more. He did not exhibit the slightest apprehension regarding the case, yet the little girl had symptoms which showed that she was beyond all help. There are numbers of cases of otorrhœa in which the attending physician has no idea of the danger his patient is in. Many of these cases will terminate fatally if not properly managed. The sooner the discharge is stopped the sooner will the patient be out of danger.

Dr. Phillips' teaching regarding hearing has always been that the round window bears the same relation in the ear that the vitreous humor does in the eye, simply to gain space. There is a small cavity filled with air and these bones help to hold the drum-head in position, and it is by the transmission of this motion through the air that we get the sensation of hearing. Sometimes patients with the membrana tympani gone have good hearing. Dr. H. C. Allen speaks of certain cases benefited by the general

practitioner. Those were cases in which there was apparent myopia with spasm of the ciliary muscle, and when this was relieved there was no necessity for wearing glasses.

Dr. Morgan asked Dr. Phillips what were the dangerous symptoms in the case narrated.

Dr. Phillips stated that the child had headache, rigors, fever and tenderness over the mastoid, some movement of the head and stupor.

Dr. B. W. James believed that chronic suppurative otitis was liable to produce internal diseases. The inflammation may extend to the mastoid cells and these become closed, and we may have a sort of cystic growth within or we may have necrosis. In cases of otorrhœa, it is in some cases good practice to make local applications.

Dr. H. C. Allen said that specialists, like the rest of us, are human. They have an eye to business. Their attention is continually directed to special subjects and they are inclined to run in grooves. The attention being directed exclusively to the eye, constitutional symptoms are overlooked. Hence local remedies are used in cases which a general practitioner would cure with his constitutional measures.

Dr. Bigler did not agree with Prof. Phillips regarding the explanation of Dr. Allen's cases. They were cases of hyperopia, in which, from constitutional causes, the ciliary muscle became weak. The remedy cured the constitutional trouble, strengthened the ciliary muscle and obviated the necessity for glasses; but it would not cure the hypermetropia. No remedy could do that.

Dr. Morgan said that these cases of asthenopia with insufficient action of the ciliary muscles were not necessarily associated with hypermetropia, as the trouble might occur in emmetropic eyes.

REPORT OF THE BUREAU OF PÆDOLOGY.

Dr. M. M. Walker, chairman of the Bureau of Pædology, presented the following papers, which were accepted and referred to the Publishing Committee:

Gastritis, by S. F. Shannon, M.D.

Cyanosis from Umbilical Hæmorrhage, by the Germantown Society.

Cyanosis, by C. Van Artsdalen, M.D.

Convulsions, by J. C. Guernsey, M.D.

Intestinal Worms, by E. S. Sharpless, M.D.

Intestinal Inflammations of Infancy, by M. M. Walker, M.D.

GASTRITIS.

BY S. F. SHANNON, M.D., SEWICKLEY.

Gastritis rarely occurs as an individual and special inflammatory disease, although it may occur thus as a consequence of the direct application of some irritating substance to the organ, such as mineral acids, arsenic or certain remedial agents, such as tartar emetic or croton oil. On the other hand, in the form of catarrh, either acute or chronic, of the mucous membrane, it is one of the most common affections of childhood, and is an important element in a great many diseases; as indigestion, diarrhœa, cholera infantum and wasting diseases resulting from improper artificial diet in infants, and the use of indigestible food in older children.

Causes.—In infants it may originate from an unhealthy condition of the mother's or wet-nurse's milk, the use of too rich cow's milk, milk obtained from an unhealthy cow or the excessive use of farinaceous food.

In older children the cause may be an unwholesome meal, the use of tough meat, of unripe or an excess of ripe fruit, orange peel, orange seeds.

Symptoms—The symptoms of gastritis so rarely exist separate from intestinal troubles that it is difficult to distinguish between them, but the most common symptoms are vomiting, diarrhœa, loss of appetite, thirst, epigastric tenderness, tension of abdomen and slight fever.

Vomiting is the most important symptom. It occurs most usually after taking nourishment, either liquid or solid. When the stomach is empty there is usually mere nausea and retching.

Accompanying the vomiting there may be violent straining and pain.

Diarrhœa is a usual accompaniment. The appetite is wanting or greatly lessened. Thirst is usually intense, although water may cause increase of the pain and vomiting. In young children there is usually great restlessness, in older ones a complaint of great burning in the epigastric region. In severe cases there is an adynamic condition, prostration, cool or cold skin, perspiration, pulse rapid, hiccough, sometimes convulsions and death.

Diagnosis and Prognosis.—The diagnosis must depend mainly upon the existence and frequency of the vomiting, on the presence of epigastric pain or tenderness, swelling and tension of the abdomen, excessive thirst, and upon absence of any other disease which might account for the child's sickness.

The prognosis is dependent upon the severity of the gastric and constitutional symptoms, and on that of the concomitant disease when gastritis is secondary. When there is excessive and obstinate vomiting, renewed by even small quantities of water; when the tongue is brown and dry, or red and glazed, or when adynamic symptoms appear and emaciation progresses rapidly it is to be feared the case will have a fatal termination.

Treatment.—The cause of the illness should, if possible, be removed first of all, and strict attention should then be given to the diet. Should the child be nursing, it should be allowed only a small quantity at a time and at long intervals.

If it is being fed on artificial food it should be restricted to barley or arrow-root water, to very weak milk and water, or small quantities of milk and lime-water. No solid food or rich liquid food should be allowed, unless the child is in a state of debility from previous or concomitant disease. Small quantities of ice may occasionally be given instead of water to quench the thirst. When vomiting is frequent it may be allayed by the use of lime-water and milk given in small quantities.

Should the child become weak and exhausted, with cool and abundant moisture on the limbs, it may be necessary to employ a stimulant. The best is weak brandy and water, or wine whey or milk punch.

The principal remedies are aconite, antim. crud., arsen. alb.,

bryonia, chamomilla, causticum, ipecac., nux vom., phos., puls., sepia, verat. album.

Aconite.—After taking cold. Fever with great thirst and vomiting.

Antim. crud.—Total loss of appetite. Tongue thickly coated, yellow or white. Great thirst at night. Vomiting. Child can not bear to be looked at or touched. The stools are watery, white, undigested. Vomiting renewed by eating or drinking.

Arsen. alb.—Nausea and vomiting, worse from rising up. Quick prostration. Restlessness. Great thirst but drinks only a little at a time. Stools of thick, dark green mucus. Bloody stools. Dark or black, watery or fluid. Child is angry, cross and violent, especially so on waking. Eating or drinking increases vomiting. Skin icy cold and covered with clammy sweat. Great weakness. Pulse rapid and scarcely perceptible, after chilling the stomach with ice cream or ice water.

Bryonia alba.—Child wants to lie perfectly quiet, cries whenever moved. The stools are dark, dry and hard. Thirst, drinks large quantities at long intervals.

Causticum.—Especially for suffocative gastritis. Spasmodic distention of the epigastrium with burning and inodorous eructations. Bilious color of the face. Absence of perspiration. Constipation. Tickling in throat, causing a dry cough.

Chamomilla.—Sour breath. Pinching pains. Flushed cheeks. Tongue thickly coated with a thick, moist, yellowish white coating, often with indented edges. Stools are green, chopped, consisting of white or yellow mucus. Smell like rotten eggs. Children can only be quieted by being carried about.

Ipecacuanha.—Gastritis from eating unripe fruit, berries, salads or sour, acid things. Easy vomiting. Constant nausea. Stools green as grass and fermented.

Nux vomica.—Always after the use of mixtures. Constipation. Loss of appetite. If the child is of a dry, nervous, irritable temperament. The pain at the epigastrium is very intense. Little sweat.

Phosphorus.—Ardent thirst. Limbs cold. Anguish. Lips pale. Pulse quickened, small, feeble. Strength prostrated. Vomiting of what has been drunk as soon as it becomes warm in the stomach.

Pulsatilla.—Symptoms worse in evening and at night. Thirstless or little thirst. Frequent sour, watery regurgitations. After eating ice cream, fruit or pastry. Stools changeable.

Sepia.—Pit of stomach sensitive to touch. Abdomen bloated. Tongue coated without lustre, or sore and covered with little blisters. Sour smell from mouth. Urine clear as water or pale yellowish. Constant drowsiness. Great fever heat. When the child takes cold from a change in the weather.

Verat. alb.—Hippocratic countenance. Cold perspiration on forehead. Eyes sunken. Pupils contracted. Lips dry and dark. No appetite. Thirst for ice cold drinks. Violent vomiting, aggravated by drinking, or the least motion. Great weakness after vomiting.

CYANOSIS FROM UMBILICAL HÆMORRHAGE.

BY THE GERMANTOWN SOCIETY.*

Definition.—A peculiar blue condition of the skin, symptomatic of various malformations or derangements of the heart and great vessels, so that a small portion only of the blood is subjected to aeration in the lungs.

Pathology.—The blood-corpuscles absorbing oxygen in the lungs convey it through the circulation to every part of the body, and therefore render the metamorphosis of tissue possible. If the absorption of oxygen in the lungs by the blood-corpuscles is for any reason stopped or diminished, arterial blood retains the properties of venous blood, and the condition of cyanosis arises.

In the minor degree it is associated with various forms of cardiac and pulmonary derangement, having the effect of obstructing the flow of blood in the veins of the lungs and system generally. The chief of these is constriction or partial obstruction of the pulmonary artery combined with systemic engorgement. In cases of cyanosis the skin is usually thin, the capillaries abnormally large; hence, when obstruction to the pulmonary and systemic venous circulation causes imperfectly aerated blood to

* This paper was prepared for the Society by Dr. J. R. Mansfield.

flow throughout the system, and still more so in cases when in consequence of some congenital malformation a small portion only of the blood is subjected to the aerating influence of respiration, a livid hue is imparted to the skin.

History.—In 1761 Morgagni described a case that had obstruction at the orifice of the pulmonary artery with an unclosed foramen ovale, and expressed the opinion that the general congestion was probably the cause of the remarkable lividity which had been noticed during life. Dr. Hunter, in 1783, in describing a case of pulmonic obstruction with imperfection in the septum of the ventricle, ascribed the lividity to the intermixture of venous and arterial blood. These opinions have since received support from various writers. The opinion of Morgagni has been supported by Louis, and that of Hunter by Gintrac.

I believe from watching cases under my care, that there is no just and constant relation between the intensity of the cyanosis, and the amount of intermixture for very marked cyanosis may exist without any intermixture, while on the other hand, in all cases of marked cyanosis there are present causes capable of producing great venous congestion; and I am of the opinion that the evidence is greatly in favor of the correctness of the views of Morgagni and Louis, "that the cyanosis results from stasis of the blood, though probably other causes may conduce to the intensity and peculiarity of discoloration." Thus the defect must be congenital, or at least of very long duration, so that the smaller vessels may become greatly dilated; the integuments must be thin, so as to allow the color of the blood more readily to be seen; and lastly, probably also from the small proportion of the blood which can be subjected to the influence of the air, the whole mass is of an unusually dark color, and so the lividity is increased.

Duration of Life.—The duration of life in the subjects of different forms of malformations varies greatly, according to the degree of defect in the heart. In cases in which the organ presents a very rudimentary condition, life can only be prolonged for a few hours or days. While in the very slight forms of defect the patient may survive to puberty or manhood and womanhood, or possibly to an advanced age: Thus, in cases of contraction of the pulmonary artery, without other defect in the organ, cases are on

record in which patients lived to forty-four and sixty-three years. When with the pulmonic disease the foramen ovale was unclosed, the subjects have reached forty to fifty-seven years. When the septa of the ventricles were deficient, nine patients have lived to between twenty and thirty years. When the ductus arteriosus was still open, patients lived to thirteen and one-half and nineteen years, but, of course these ages are the extremes, and by far the largest proportion of cases die early.

When the pulmonic orifice or artery is impervious, but few patients survive for more than two years, but cases are on record in which the ages of nine and twelve years were attained (Quain), the age being greater according to the facility afforded for the transmission of the blood from the right side of the heart, as when the septum of the ventricles was imperfect, than when the ventricles were completely closed. Transposition of the aorta and pulmonary artery is a defect incompatible in any of its forms with the prolongation of life for lengthened periods of time. Four cases are recorded in which the patients survived two years, the imperfection of the septum of the ventricles tending in these cases, also, to prolongation of life. Lastly:

Hæmorrhage from Umbilicus.—This, the special theme of our paper, resulting from any of the above mentioned imperfections of heart and vessels, causing cyanosis from loss of blood from umbilical vein—due to imperfect closures. I was called to a case of umbilical hæmorrhage which resulted in death from cyanotic symptoms about eighteen months ago. The blue condition of the skin attracted my attention, and, on examination, I found a marked loss of blood from the navel of an infant five days old. The cord was still fairly compressed by the original ligature, but it was again tied, and I prescribed hamamelis with very little relief, the bleeding still continuing. I applied styptic cotton, per sulp. of iron, nitrate of silver, and bandaged tightly to stop oozing, but of no avail. Dr. Thomas Moore called in consultation and applied turpentine on cotton and prescribed phosph. No result, when Dr. John Malin was called, he applying the per salt of iron and compress, after which we ligated the vein, but this sloughed away in about six to eight hours. Professor Charles M. Thomas arrived and again ligated, subcutaneously,

which stopped the current of blood for a few days, when we found that the large vessels of the trunk were becoming dilated, and on the tenth day our case died from cyanosis, the result of rupture of the pulmonary artery and umbilical vein. But some cases will survive after slight loss of blood from the umbilicus, and the following treatment is suggested: Good nutritious diet; plenty of pure fresh air; very moderate exercise; lay the child on its right side at an angle of forty-five degrees, and lastly and by all means, our carefully selected homœopathic remedies.

CYANOSIS (MORBUS CÆRULEUS).

BY C. VAN ARTSDALEN, M.D., ASHBOURNE.

The term cyanosis (blue disease) is employed differently by different writers; thus, some regard it only as a symptom; others apply it to the lividity occurring in the course of acute diseases. Most pathologists, however, apply the term only to cases of permanent structural changes and malformations.

Cyanosis is, strictly speaking, a blood disease, and is due chiefly to malformations in the circulatory system. It will mostly be found in the heart, or in the large vessels near that organ, yet, we may have the cause located in the lungs, from emphysema in one or both; or, a fibrinous exudation over both, compressing them by contraction; or, in fact anything that would cause a deficient oxygenation of the blood or an excess of carbonic acid.

Dunglison gives the following definition:

"A disease in which the surface of the body is colored blue. It is often symptomatic, and commonly depends on a direct communication remaining between the cavities of the right and left sides of the heart; such communication, however, does not always occasion blue disease, but it is generally thought that the disease never exists without this state of parts, or without some obstacle to the circulation in the right side of the heart. The blueness does not seem to be owing to the admixture of black and red blood."

The symptoms of this peculiar affection are a lividity of the skin, tongue and lips, but this is not its most important, or its

essential characteristic; nevertheless it is the most conspicuous and the only one by which we can readily recognize the disease. We have also a general coldness of the surface; palpitation and violent action of the heart; faintness and syncope; pulse feeble and irregular, or full and bounding; irritation of the bronchial organs; congestion of the lungs, and occasionally hæmoptysis. The existence of a murmur is generally found over the point of communication. Cyanosis, although dependent on malformation, does not always commence at birth, or at least it does not exist in sufficient degree to produce the lividity, till some time has elapsed.

In 138 cases, the time at which the blueness was first observed, 97 were within the first week, mostly within a few hours after birth, the remaining 41 were from two weeks to forty years.

Few people affected with this disease live to attain middle age; most die young. Of 186 cases, 67, or more than one-third, died before the close of the first year; 121, or more than three-fifths, before the age of ten; 24 survived to the age of twenty, and only 4 to the age of forty years.

Aberle states, of 159 cases 57 died before the end of the first year, 108 before the age of eleven years, 30 between the eleventh and twenty-fifth years, and of the 21 remaining, 5 lived more than forty-five years.

Louis has recorded one case in which the age of 55 years was reached.

After cyanosis once makes its appearance, and becomes thoroughly established, improvement to any extent is very rare and very deceptive. The trouble is still progressing. This accounts for the unfavorable and unsatisfactory prognosis, and explains why so many die before reaching middle life.

As the disease advances, that is, near the end of life, we have a more or less dropsical condition, particularly around the ankles, in the eyelids and about the face. The eyes are pushed forward in their sockets and the patient is constantly changing their position. Some authors seem to favor the opinion of the occurrence of tubercles; others deny it as not being conclusively shown, but associate with it scrofula. Some patients complain of a severe headache and pain in the chest, simultaneously with the palpitation and dyspnœa, but whether these are caused by the cyanosis

or even aggravated by it, is a question of doubt, as these occur sometimes without any apparent exciting cause; otherwise pain is not common.

The secretions do not appear to suffer at any period, as far as I have been able to ascertain; the bowels are generally regular, urine normal in quantity and quality. One case is reported where the urine was clouded but not albuminous. The farther advanced in life the patient is the more danger of difficulties of this kind, but they are rare even then. A case has been mentioned where blood was passed with the stool.

Infants die from convulsions with few exceptions, others from brain troubles, hæmorrhage, phthisis, etc. Whooping-cough appears to be one of the most fatal of the diseases to which childhood is subject.

Rokitansky says: All forms of diseases of the heart, great vessels and lungs adapted to produce cyanosis cannot co-exist with tuberculosis. It affords a complete protection against it. Yet other authors, as eminent as he, contend that nearly all are associated with or have died directly of phthisis.

Few post-mortem examinations have been made, and as far as I can find, there has never been any chemical analysis of the blood of a cyanotic patient made. We know, however, that the blood is very dark, slow to coagulate, containing an insufficient quantity of oxygen and an excess of carbonic acid. The heart and capillaries are more or less congested with some serous effusion. In a great many cases the pericardial fluid is increased, and in one or two cases the fluid contained a small quantity of blood. In another there was an adhesion of the two pericardial surfaces. There has been found serum slightly tinged with blood in the pleural cavities. Adhesion between the pleura and the costal cartilages has been noted. A very large number were associated with tubercular disease. The lungs are, as a general thing, small. They may be natural or very dark in color, mainly the last.

Occasionally we find the lungs larger than normal. In one case reported the right lung was entirely absent. The brain does not, in itself, seem to suffer from the disturbance, for in some it will be found to be normal; in others but slightly congested. The abdominal organs are generally congested and enlarged, especially the liver.

One writer reports a case where there was a communication between the right and left heart without cyanosis. M. Valleix does not think such a communication is certain proof of cyanosis.

Treatment seems to be of very little benefit, internal or external. One might easily be led to think that oxygen gas, in conjunction with our remedies, would be of service, but if it is the result of malformation it would have to be continued the lifetime of the patient.

CONVULSIONS.

BY J. C. GUERNSEY, M.D., PHILADELPHIA.

There are few causes of hasty summons which the busy practitioner meets with more often, particularly if his professional duties lie largely among children's ailments, than the familiar, "Come at once: my child is in convulsions!" Frequently this call is sent not only post-haste to the usual family physician, but all the doctors of whatever pathy, mode of practice, or potency, living within a convenient radius are in agonizing accents implored by relative, nurse, or officious friend to hasten to the little sufferer. When we recall the numerous, or rather innumerable, causes that may give rise to this affection in an infant, the frequency of occurrence cannot be wondered at. To the glory of homœopathy be it said, however, the true disciple of Hahnemann does not receive these calls so often, in comparison, among his own patients, as among those of the antagonizing school. Thus statistics of their liability to occur among a given number of children are not available, as we find these compiled by the old school authorities alone. The reason why the pure homœopath does not have so many of these cases, is because by the scientific application of his illimitable armamentarium, the *materia medica*, he so accurately prescribes for and *cures* all the ailments of childhood, that he is freed from what a convulsion so often really is—an unwarrantable complication! The homœopath does not suppress scald head by local applications; he does not expel worms by vermifuges; or repel eruptions by ointments; or deluge with castor oil for constipation; lock up a diarrhœa with opium; force to sleep the crying infant with laudanum; vomit for

indigestion; administer powerful drugs for whooping-cough; heap in grain upon grain of chloral for brain disease, or of quinine for chills. These are frequent causes not generally enumerated, if you please, by the allopaths in making up their statistics (!) of the frequent occurrence of convulsions. There are, in all truth, causes enough, independent of the above, to produce spasms, which we will state in their proper place. What we wish here to asseverate is, that when the honest physician of our school carefully administers the similimum in every ailment, however slight or grave, the remedy maintains his patient in a state of such perfect cerebral and spinal equilibrium and strength, that convulsions are not likely to occur.

Definition.—By the term convulsion we mean a paroxysm characterized by a primary involuntary tonic contraction, followed by alternate contractions, violent, irregular and involuntary, of the affected muscle or muscles which in health contract only in obedience to the will power. When slight, these contractions are termed *tremors;* when the convulsive movements are irregular, with alternate relaxation, they are called *clonic;* a constant or fixed rigidity signifies the *tonic* form. The latter is often termed *tetanus*, and if confined to the muscles which raise the lower jaw, *trismus.* Spasms of separate muscles are called *subsultus tendinum.* The duration of the attack is variable; it is usually attended with unconsciousness, followed by stupor; and may range from the involvement of the entire system of voluntary muscles to a single group, or only a single muscle.

Classification and Causes.—A division of convulsions into classes is convenient and, to some degree, is beneficial for diagnostic and prognostic purposes. For any practical value in treatment, classification avails nothing to him who selects his remedy in accordance with the totality of the symptoms, as, to the true physician, "this alone constitutes the disease"! We will therefore recognize,

1st. The *idiopathic;*

2d. The *sympathetic;*

3d. The *symptomatic.*

The cause producing the first class acts directly upon the nervous centres; it may be perceived instantly, or may be so occult as to apparently defy discovery. In the latter event a searching study

into the patient's health should be made, including a careful examination of all the organs, to learn whether there be, and if so where, any diseased condition. The cause may have been very slight—even the least as well as the greatest departure from the normal state being sufficient to produce a convulsion.

We may enumerate as direct influences, vivid moral emotions, as fright, fear—as of punishment, dark rooms, etc., violent pain, tickling, high temperature, exposure to the sun, or to the cold, impure air, want of cleanliness, improper food, injuries, after nursing from a mother or wet-nurse, who is suffering from any violent mental emotion. "Convulsions in very young children are very often brought on—at all events kept up—by having their heads buried in feather pillows." (*Hom. World.*)

II. Sympathetic convulsions may appear in almost any of the children's diseases; they result from an affection of distant organs, which, by exciting a morbid irritation in the brain, by means of the sympathetic relations which exist between that organ, and the part affected, induce the convulsion. These are the kind usually found in whooping-cough, pneumonia, catarrh, scarlatina, enteritis, measles, typhoid or violent fever from any cause, dentition, indigestion and vermicular affections. Just here remember that convulsions are often caused in a child while suffering from any one of these diseases by acute indigestion. A hearty meal, or improper food, injudiciously administered or foolishly allowed, produces many a convulsion.

III. All symptomatic convulsions belong to brain and spinal diseases, and are found in meningitis, tubercular disease, hydrocephalus, apoplexy, etc.

Symptoms.—A convulsion may appear without an instant's warning, while the infant is rolling on the floor, in play, and gleefully kicking his little heels into the air; while nursing from a bottle, especially if the milk be curdled, or while eating; while peacefully sitting on his mother's lap; or while sweetly sleeping in his little bed. There may—on the other hand—be some premonitory symptoms lasting from a few seconds to as many days; such generally are drowsiness, unusual irritability; slight tremors, rigidity of the fingers or toes, light and restless sleep, with starts, moans or sudden screams; the eyes appear fixed and

staring, with vacant expression of the face. Rigid flexion of the thumbs and toes are usually premonitory of grave symptomatic convulsions.

The attack itself is always sudden. Sometimes a shrill cry is heard, then comes the momentary tonic spasm with fixed, staring and often upturned eyes, temporarily arrested respiration, livid and congested face. Quickly come the clonic convulsive movements, which may involve much or little of the muscular system; the features are contorted, eyes often roll up and down and from side to side in an agonizing manner; the breathing, more or less irregular, comes with a peculiar gasping sound; the movements vary from a slight twitching to violent jactitation. The duration is from a few minutes to many hours, cases being recorded which lasted over twelve hours. As the convulsive movements cease the patient sinks into a deep sleep or heavy stupor.

Diagnosis.—Epilepsy is the only disorder that convulsions are likely to be mistaken for; but in the former the invasion is more sudden and there is greater rigidity; there is also frothing at the mouth; the attack is sooner over and a more marked stupor ensues; further, the younger the child, the less likelihood is there of epilepsy. But if the child is near puberty, and if the attacks, unaccompanied by fever, are of frequent occurrence, with perfect health during the intermission, the disease is more probably epilepsy. The diagnosis is much enhanced in value by determining to which of the three classes—idiopathic, sympathetic or symptomatic—the attack belongs, for on this point the prognosis more or less depends. The treatment, save the hygienic, is of course unaffected by this classification; for in all cases of every disease, "the symptoms alone constitute the disease," and hence indicate the proper remedy.

Prognosis —This depends upon concomitant circumstances. If the convulsions arise from an easily discovered cause, which admits of ready removal, no fear need be entertained, particularly after the administration of the *similimum*. If the attack is a sympathetic complication there may be more apprehension, though here too the proper remedy will generally overcome the trouble. If symptomatic, the danger is still more enhanced as here, usually, a serious lesion of the brain or spine has to be met and overcome.

In general terms, convulsions occurring at the inception of any disease need not cause undue alarm; while if they appear at its end, *i. e.*, after the disease has been progressing for some days, a convulsion denotes the fatal termination.

Treatment.—If in any other abnormal condition known to mankind hygiène can be dispensed with, in this affection it can *not* be. Nor will it suffice for the physician to state suggestively, "I would advise thus and so;" he must assert his right to be obeyed and command the most careful hygienic treatment. He must insist on absolute quiet and rest for the little patient, with entire freedom from all exciting, or in anyway disturbing influences. Do not talk to the child; do not play with or try to amuse him; do not roll him around or toss him in the air "just to please him." Have the room shaded, though not in absolute darkness; admit plenty of fresh air; maintain an equable and agreeable temperature of the room. Be careful, to the last degree, about *diet*. Have the food well cooked, of easy digestion and nourishing; do not allow a hearty meal nor admit of too long fasting. Loosen all the clothing so as not to have a tight band anywhere.

THERAPEUTICS.—Seek the remedy, the pathogenesis of which most nearly corresponds with the presenting symptoms of any given case. As almost any remedy in the materia medica may thus be called for, I shall not attempt the task of here enumerating so large a list, but will state a few characteristic symptoms of those most generally called for.

Aconite.—In consequence of exposure to dry cold air; teething; very restless; anguish; biting the fists; dry hot skin; sometimes irritation of seat worms.

Æthusa.—Spasms with stupor, delirium; turning of the eyes downward; epileptiform, with clenched thumbs.

Agaricus.—Spasms, with tremor of whole body.

Amyl nitrite.—With unconsciousness and inability to swallow (a faculty not generally lost in convulsions); piercing shrieks; bad effects after long continued convulsions.

Apis.—Boring the head into the pillow; piercing shrieks; cerebral affections.

Arnica.—In consequence of a fall or injury. (Examine hepar if arnica fails.)

Arsenicum.—Very anxious expression; restless; lies as if dead, pale but warm, when at last a violent jerk agitates the whole body, then consciousness returns.

Belladonna.—Face glowing red or very pale; eyes very red with dilated pupils; much stupor; very drowsy, but can not sleep; sudden twitchings and jerks while asleep or awake.

Bryonia.—Spasms arising from repercussion of measles.

Calc. carb.—Tendency to spasms in scrofulous diathesis; open fontanelles; teething process generally very slow, or may be too rapid; often needful after belladonna.

Camphor.—Spasms from suppressed catarrh of head or chest.

Causticum.—Affecting upper part of the body, with feverish heat and coldness of hands and feet. Convulsive motions of the extremities in the evening while sleeping, with disturbed eyes and icy coldness of the body.

Chamomilla.—Very cross; cries and screams much; wants to be carried all the time; after nursing from a woman who has experienced a fit of anger; one cheek red, the other pale; twitching during sleep.

Cicuta v.—Suddenly, without any premonition, the child becomes very stiff and rigid; exceedingly violent shocks and jerks; sometimes vermicular complications.

Cina.—Pre-eminently useful in vermicular affections; child is exceedingly cross, cries and strikes at all around him; will not be good and will not be pleased with anything.

Coffea.—From over excitement, as in play; tendency to spasms.

Cuprum m.—Spasms begin in the extremities; after a spasm child turns and twists until another one comes.

Cuprum acet.—Resultant from retrocession of eruption in scarlet fever.

Helleborus.—Urine very dark with sediment like coffee grounds; in nursing children with extreme coldness; intense pain in the head.

Hepar sulph.—Sometimes after injury, as of pressure on the head; trismus of new-born babes.

Hydroc. acid.—Principally affecting muscles of back, face and jaws; body assumes bluish tint.

Hyoscyamus.—Every muscle in the body is convulsed, eyes,

eye-lids, facial muscles and all the rest; frothing at the mouth; from fright or fear.

Ignatia.—From grief, as from sorrow at a disappointment, or from being punished; often of the tonic variety; trembling all over; returning at same hour every day; affection of single parts.

Ipecacuanha.—Accompanied with nausea and vomiting; very often from indigestible food, ground-nuts, raisins, pound cake, pulp of an orange, etc.; from a suppressed eruption; child is spasmodically drawn in one direction.

Kreasote.—Swelling of gum over a tooth not quite through; teeth look black and decay as soon as they appear.

Lachesis.—Coming on during sleep; trembling of the tongue.

Laurocerasus.—Much gasping for breath, before, during or after the spasm, with bluish tint of the skin.

Lycopod.—Spasms produced by incarcerated flatus.

Mercurius sol.—From suppressed salivation; swelling of gums; hard abdomen; profuse ptyalism.

Nux vom.—Resultant from indigestion, arising from high living or temper in the nurse; spasms renewed at least touch.

Opium.—From fright; anger or fright (in nurse); in new-born babes with screaming; in children from approach of strangers.

Platina.—In anæmic children; tonic spasms without loss of consciousness.

Secale.—In thin scrawny children; affecting single muscles; twisting of the head to and fro.

Silicea.—Spasms returning at change of the moon; after vaccination; at night.

Stannum.—With the cutting of each tooth; worm symptoms with more brain excitement and more fear than under cina. See also spigelia.

Stramon.—Suppression of eruption or eruption does not come out sufficiently; spasms increase in the dark and are better in bright light.

Sulphur.—After suppressed eruptions. Often removes tendency to convulsions when all other remedies have failed.

Tart. em.—From repelled eruptions, paleness of the skin and much dyspnœa.

Veratrum alb.—Cold sweat on forehead, pale face; trembling all over; great prostration.

Veratrum vir.—Anæmic subjects from exhausting diarrhœa; opisthotonos.

Zincum.—Child cries out and is restless during sleep; looks afraid and anxious on awakening; more twitching on right side than left; involuntary or more frequent urination; body very hot; continually fidgety feet.

In addition to the above remedies we may sometimes need *asafœtida*, when accompanied by worm troubles; *solanum nigrum*, which acts similarly to and is sometimes useful after secale,—"especially when convulsions seem to arise from diseased corn." (Hartmann.) *Corallium rub.* for convulsions arising from very severe whooping-cough, with spasm of the glottis. Spasmodic affections caused by masturbation, or other shocks to the nervous system: sulph., calc. c., lach., sil., nux v., and perhaps arn., china., phos. ac.

Indigo is extolled as a remedy by some authorities where there is a great tendency to frequently recurring spasms.

INTESTINAL WORMS.

BY E. S. SHARPLESS, M.D., PHILADELPHIA.

Introductory remarks.—In the medical study of parasites the whole question of "the changes from a condition of health" is viewed from quite a different standpoint than in the non-parasitic diseases.

Here we can begin with the exciting cause, which we can isolate, compare, experiment upon, and learn the history of, before we study its effects. The extension of knowledge may possibly, hereafter, enable us to so approach the study of cholera, scarlet fever and other diseases.

In this article the order thus indicated will be followed. The names and zoological position of the worms found in the human intestines and the more important species will be described with only so much of detail as is necessary to the medical practitioner. The changes of function or structure which they produce, the conditions which favor their occurrence, the methods of detecting, expelling and avoiding these pests will be treated of.

There are at present at least thirty-one entozoa known to

inhabit our bodies, and of this number thirteen infest the intestinal canal. Of these, seven belong to the order cestoda:

1. Tænia solium.
2. Tænia medio-canellata.
3. Tænia nana.
4. Tænia flavo-punctata.
5. Tænia elliptica.
6. Bothriocephalus lata.
7. Bothriocephalus cordatus,

and six to the order nematoda;

8. Ascaris lumbricoides.
9. Ascaris mystax.
10. Oxyuris vermicularis.
11. Dochmius duodenalis.
12. Trichocephalus dispar.
13. Trichina spiralis.

Order Cestoda.—Parenchymatous worms, without mouth or alimentary canal, with a so-called water vascular system. They develop by budding from a pear-shaped larval form (scolex), cysticercus, to a long, jointed, tape-shaped colony of individuals.

The TÆNIA SOLIUM was at one time supposed to be "the common tape-worm of man," but it is now known that at least one other species is included in that expression. The tænia solium and tænia medio-canellata resemble each other closely; the former, however, is smaller. The immature cysticercus of tænia solium being about $\frac{9}{100}$ of an inch long, while that of the latter is the size of a small pea.

The tænia solium has a circle of hooklets around a convexity of the head, and is designated the armed tape-worm.

The tænia medio-canellata is club-headed, but has larger sucking disks than the former, and is designated the unarmed tape-worm; it is more easily driven out than the tænia solium.

The former is from the cysticercus cellulosæ of the hog; the latter from the cysticercus bovis (Cobbold), and is the most common in man.

The tape-worm is formed of flat segments, often several hundred in number, connected with the head by a slender neck.

The whole length of the parasite is from ten to thirty feet.

As the segments at the tail mature they are cast off, some patients thus passing from six to eight fragments daily.

Each segment has male and female sexual organs; they are very prolific, a moderate-sized worm often containing 5,000,000 ova. These ova escape with the segments and are frequently set free in the bowels where they migrate with the contents. The greater majority of them probably die, but a small proportion are taken into the stomach of the hog or other food-bearing animal, where they develop into the cysticerci by finding a suitable soil and burrowing into the tissues, there lie quiet until again transferred with the food into the intestines of man.

When flesh so infected is eaten raw, or partially cooked, the cysticercus loses its vesicular annex in the stomach during the digestive process, and passing to the small intestines, attaches itself, becoming developed in from three to four months into the adult form already described, which may infest its bearer from ten to even twenty-five years. (Küchenmeister. Leuckart.)

The normal habitat of the tape-worm is the small intestine of man.

Küchenmeister has seen it, while yet alive, firmly attached by suckers and coronets to the mucous membrane.

Formerly it was supposed to be always solitary, and this probably explains the statements of older authors of their great lengths. It is now generally well-known that, although two or three are commonly found together, various numbers, from twenty to fifty, may be found.

TÆNIA NANA, described by Von Liebold, is scarcely an inch long, and a native of Egypt.

TÆNIA FLAVO-PUNCTATA.—Very rarely met with.

TÆNIA ELLIPTICA; also very rare, and not worthy of notice in this short paper. The remaining two varieties of tape-worm found in man, belong to the family

Bothriocephalidæ, of which the scolex or cysticercus chiefly affects cold blooded vertebrate animals (Cobbold).

BOTHRIOCEPHALUS LATUS, the largest tape-worm known to inhabit man, sometimes reaches the length of sixty feet, more common from eighteen to twenty-six feet. The head is unarmed, oblong or club-shaped, and has two large suckers and passes

gradually into a short thread like neck. The joints are broader than long, hence the term broad tape-worm. The joints are not expelled singly as is often the case in tænia solium, but in long chains of two to four feet. The ova escaping into water are supposed to be taken up by a fish or probably a mollusk, and then assume the larval form at present unknown.

This species has a somewhat limited geographical position, being known in the western counties of Switzerland, northern Russia, Sweden, Poland, Holland, Belgium and eastern Prussia.

It is found in persons of all ages and sexes and even children at the breast are not free from it in those countries where it is most common.

BOTHRIOCEPHALUS CORDATUS, a recently discovered, much smaller worm, is a native of Greenland, in men and dogs, has a caudate head and no neck.

Symptoms.—Some individuals experience no inconvenience from it. Others complain greatly of pain in the stomach, nausea, vomiting, ravenous hunger, even unto fainting. The abdomen may be bloated or contracted. In some cases diarrhœa may be present, in others constipation.

Among the sympathetic symptoms may be mentioned itching of the nose, headache, dizziness, getting dark before the eyes, noises in the ears, palpitation of the heart, etc., but none of these symptoms are of diagnostic value unless the segments are found in the stools.

Chorea, epilepsy and even insanity are said to be sometimes caused by the presence of the tape-worm, but are not well established facts.

The symptoms are usually ameliorated by mild plain food and aggravated by condiments, sour and highly-seasoned food, and after eating the latter some segments are often discharged, thus clearing up the diagnosis.

TREATMENT.—No cases have come under the notice of the writer where the parasite was removed by potentized remedies, and as it exists as an exciting cause its removal becomes a necessity: 1st, to overcome the irritation to the intestines caused by its presence, and 2d, to satisfy the demand of the patient, who desires its removal, and whose symptoms are usually much exaggerated after discovering its presence. Hence we must resort to crude drugs in sufficiently large doses to cause its expulsion.

Several drugs are highly recommended. The male shield fern (aspidium filix mas.) is one of the best; dose 60 or 100 grs. of powdered dried root, or from 1 to 2 drachms of the fluid extract, taken on an empty stomach and preceded by a purgative. Kousso, in doses of $\frac{1}{4}$ to $\frac{1}{2}$ oz. Kameela, from the fruit of the rottlera tinctoria, the oil of turpentine and several other drugs are highly lauded.

In the experience of the writer, the kousso has not proved satisfactory, the head always remaining in several cases. The prescription now used by him, and which has removed the head in four cases and failed in two only, in one of which the worm was reproduced, is as follows:

℞ Rottleræ, ʒj.
Oleo resinæ filicis, fʒss.
Mucilag. acaciæ.
Syrupi auranti, āā fʒjj.

M. Sig. One-half at bedtime on an empty stomach; the remainder the next morning. Should this not operate adequately a dose of castor oil should be given.

Nematoid Worms.—The ascaris lumbricoides is quite a common entozoa, inhabiting the small intestines, but occasionally getting into the stomach or large intestines.

This round worm is from five to fifteen inches in length, light brown in color, tapering to a point at each end. A considerable number of them may exist together, and it is only then that their presence may cause much harm except in very susceptible children.

Unlike the tape-worm, the round worms have the sexual organs developed on separate individuals, there being males and females, the latter being the most numerous and larger than the male. They are very prolific, a healthy female discharging 160,000 ova per day. (Leuckart.)

These again enter the body through impure drinking water of shallow wells or drains.

Symptoms.—Sometimes they cause no marked symptoms, but they often give rise to abdominal gripings, increased secretion of slime, diarrhœa, vomiting, irregular appetite; or as reflex symptoms, itching of the nose, anus, genitals, enlargement of the

pupils, squinting, increased flow of saliva, restless sleep, with frequent shutting and grating of the teeth.

TREATMENT.—The object here is to expel the worms present and prevent their reaccumulation. For this purpose santonin has a well deserved reputation both in the old and our own school. This remedy will usually prove sufficient, either crude in very small doses or in the lower decimal triturations or dilutions. Later, to overcome the irritation which may remain, such remedies as cina, spigelia, sulph., nux, bell., calc., etc., may be used.

OXYURIS VERMICULARIS, or the common white seat worm; of this variety the male is about one line ($\frac{1}{12}$ inch) long; the female five or six lines. It is found in the rectum, generally of children; sometimes in considerable numbers. They cause a great deal of itching; occasionally other nervous irritation. In females they sometimes find their way into the vagina, or more rarely into the urethra.

By the irritation excited by their presence, we have caused in the rectum catarrhal inflammation of the mucous membrane of the anus, even blennorrhœa; also swelling of the hemorrhoidal veins with tenesmus; also leucorrhœa may be caused by their presence in the vagina.

TREATMENT.—To relieve the local irritation injections of cold water or salt and water, or suppositories of santonin—cacao butter and three grains of the drug to each. Cina, bell., spigelia., sulphur, etc., as indicated by the symptoms.

TRICHOCEPHALUS DISPAR.—This worm inhabits the large intestines, it has a length of an inch and a half to two inches. The head is attenuated or hair-like; whence the name. The sexes are in different individuals. The trichocephalus is much less common than the lumbricoid worm.

DOCHMIUS DUODENALIS is common in Egypt and parts of Europe. It exists in the small intestine and causes a chlorosis like anæmia. The worm is from a third to half an inch long. Its vermicide is said to be turpentine.

Special Symptoms.—For pruritus ani—ign., mar. ver., sulph.

For constant desire to defecate—mercury.

For salivation and nausea—ferrum.

For nightly spasms—valerian.

For sensitiveness of epigastrium with internal heat—nux vom.

For nocturnal colic, with salivation, excitation, spasms, trembling, debility—china, valerian.

For convulsions—bell., cham., hyos., ign., stram.

For spasms and hallucinations—bell.

For vermiculous diathesis—calc., sil., sulph.

In addition, may be mentioned as vermifuges, apocynum and., asclepias syriacia, dolichos pruriens, argentum nit., cicuta, euphorbia, gelsemium, helonias, podophyllum and terebinthina.

Treatment for Worms in General—Persons can secure themselves against the tape-worm by eating only such pork, ham sausages, etc., as are well cooked; and for the benefit of the public, pigs or beef infested with measles should not be sold for food, and doubtless fewer pigs would suffer with measles if greater care were taken to destroy human excrement. The prevention of ascaris lumbricoides cannot be so confidently treated of as the tape-worm because we are not so certain how it enters the body; but whether we hold with Leuckart that an intermediate bearer is essential, or with Davaine that it is not, and that we drink the ova in impure water, in all probability the careful cooking of all our foods and drink would prove a protection even in those districts in which the pest most abounds.

It is not probable that well filtered water could convey the infection.

Prevention of the seat worm:

The person affected should be scrupulously clean in person and in clothing, and children not affected with the worms should not be allowed to sleep in the same bed with those affected.

Well cooked food only should be used.

The following list of homœopathic remedies are mentioned under worm affections:

The indications and special symptoms can be found in Lilienthal's Therapeutics and Raue's Pathology.

For Tænia:—1. Calc., graph., platina, puls, sabad., sil., sulph. 2. Carbo veg., nux v., petrol., phos. 3. Ambra, ars., china, fragar vesca, ign., kali, magn. m., teucrium, merc., natrum, sabina, stann., verat.

To expel the intruder:—Kousso, filix mas., pumpkin seed emul-

sion, punica granata, or, according to Hering, two doses of sulph. during declining moon, and next declining moon one dose mercury.

Ascarides:—1. Acon., bell., cina, china, dig., ferrum. 2. Asarum., calc., graph., ign., marum ver., merc., nux, sabad., spig., santon., stram, stann., sil., valerian, verat. alb., sulph.

Oxyuris vermicularis:—1. Acon., allium cep., cina, cupr., ferr., merc., sabad. 2. Calc., hep. and sulph.

INTESTINAL INFLAMMATIONS OF INFANCY.

BY M. M. WALKER, M.D., GERMANTOWN.

Most writers have treated inflammation of the large and small intestines of infancy as a single disease, for such inflammations are generally merged the one into the other, and are synonymously termed inflammation of the bowels, enteritis, entero-colitis or intestinal catarrh. Inflammation of the stomach or gastritis is usually described as a separate disease, as well as the affections known as typhlitis and proctitis.

Intestinal inflammation is a very frequent and fatal disease of infancy; is generally epidemic in cities in the summer time, and thousands of cases succumb to this affection which are erroneously termed cholera infantum.

Enteritis is also occasionally a winter disease, cases occurring in this city nearly every February. The causes of these winter attacks are most likely the drinking water becoming impure and imperfectly aerated by being covered with ice, the water thereby retaining whatever impurities may flow into it; impure well water; snow-water containing imperceptible impurities; from heated cellar air, where no direct flues convey pure cold air from outside the building to the heater and then through the house; emanations from dwellings built upon made-up portions of the city, subject to the decomposition of perishable materials in the filling up; or from mouldy matting or rags, plants put away for the winter in the cellar, the moist soil and fertilizer undergoing decomposition, and other refuse matter in the underground part of

the house which is generally tightly closed in cold weather, the air rising and contaminating more or less the whole house.

In summer the filthy streets and gutters contain more or less putrefying vegetable and animal matter, the emanations from sewers coming directly to our bath-rooms, water-closets, kitchens and often to the washstands in our bedrooms. While these outlets convey away the waste water for a few moments each day they also carry back unseen and often unperceived, for the major portion of each twenty-four hours, poisonous gases, which give rise, not only to this particular form of illness, but frequently to others far more rapidly fatal.

Dentition may occasionally be a cause of entero-colitis, but it is more frequently accompanied by a simple or non-inflammatory diarrhœa.

Weaning may sometimes give rise to it, but with the great number of good foods for infants we should be able to select two or three, which will carry a child safely through the summer without a serious attack of intestinal inflammation from this cause. Under the age of six months infants seldom have enteritis, while from six months to two years they are more liable to it, especially during the hot summer months.

The diet of children has much to do with their having inflammatory diarrhœa.

Children where the best of care is taken with their food, in the absence of the mother or through the carelessness of a nurse, may in a few hours, especially during an epidemic of enteritis catarrhalis in hot sultry weather, be plunged into days or weeks of illness. A thunderstorm may sour the milk intended for a child, when, if not detected and some other food substituted, a serious illness may ensue.

I think if people generally would adopt the diet of most water-cure establishments during the summer months they would accomplish as much work and maintain far better health than by the highly-seasoned, concentrated and greasy food of most of our homes and hotels. This fare, simple as it is, and some of it coarse and unsuited to a majority of summer boarders and all epicures, seems to be, nevertheless, more in accordance with the necessities of man, and more closely resembles the food of the

animal kingdom, which, under usual circumstances, is free from disease.

One is far less likely to over-eat this palatable and nutritious food, and if they do, it is comparatively harmless; whereas rich food is injurious in even moderate quantities.

When people are willing to adopt this form of diet, physicians will have far less to do. It is among the over-fed and those indiscreet in the selection of their food that we find torpid livers, clogged systems, intestinal irritations and inflammations toward which we physicians must especially direct out attention.

To have this system of plainly prepared food adopted, the wives and daughters of the household will have to stand at the head of the kitchen, for the usual cook and helper knows nothing of and will seldom learn this new and uncomplicated way of nicely preparing wholesome food for the family.

Symptoms.—Intestinal inflammation in the infant usually commences with moderate diarrhœa; the number of stools being from four to six daily. The color is yellow at this early stage of the disease, and in young infants may be green. No matter what the color, they are acid in smell and in their reaction on litmus paper. There is some fever and peevishness. As the disease progresses vomiting sets in, and in consequence of this the face is pale, the flesh becomes soft and flabby and emaciation is soon perceptible. The fretfulness may cease when the patient becomes exhausted. The child will present an old look, with wrinkled face, the eyes sunken, cheeks hollow, and, owing to want of proper contractile power of the orbicularis oris and orbicularis palpebrarum muscles, the mouth and eyes are not closed during sleep.

At the commencement of the attack the tongue is moist and covered with light fur; later it becomes dry, and in dangerous forms the mucous membrane of the mouth is red, the gums swollen, sometimes ulcerated, and, in infants, aphthæ may appear.

The vomiting which sets in after the diarrhœa is often very troublesome and acid in character, and may contain lumps of casein or undigested food.

Brain symptoms may now set in and the vomiting continue from this condition of the patient.

The stools may continue through the attack very much as at

first, being putty-like, brown and offensive. They are generally like chopped spinach, with some mucus and a little blood. The stools are not so watery as in true cholera infantum. When of a yellow color at first they become green on exposure to the air, or from chemical reaction resulting from admixture of urine. The skin is hot and dry, the abdomen hot and distended, the hands feel dry, hot, and claw-like, something like the foot of a fowl, and the urine may be passed but once or twice a day.

There may be some erythema between the thighs, and boils may appear upon the scalp. A dry cough may be present and continue till the close of life, or gradually leave if the child recovers.

As the disease assumes a more unfavorable termination, the child turns from its playthings, becomes more irritable, and rolls its head from side to side, lets its head drop unsteadily forward or backward; gagging and other symptoms of irritability of the stomach are more apparent.

In some cases the prostration is too great for manifestations of restlessness, and the infant lies quiet. As death approaches the infant becomes drowsy. The limbs are cool, it refuses food, the pupils are contracted, the eyes are bleared, and a puriform secretion collects between the lids.

The stools are less frequent, vomiting ceases, and death occurs quietly. Convulsions sometimes set in near the close. Acute cases run their course in two weeks or less. Occasional cases continue for several weeks during summer and terminate fatally the last of August or in September with hydrocephaloid symptoms.

If the duodenum is affected as a complication in this affection the bile duct is obstructed and icterus sets in.

Pathological Anatomy.—From the records of Dr. Lewis Smith and others, that portion of the small intestine most frequently inflamed was the ileum. The inflammation usually affected the ileo-cœcal valve, and extended from it to a greater or less extent along the small intestine.

Inflammation of the colon is present in nearly every case of intestinal inflammation in infancy, and in a large proportion of the cases ileitis is also found. The portion of the colon which is most frequently inflamed is that in and immediately above the sigmoid flexure.

The solitary glands, both of the large and small intestines, and Peyer's patches are involved in nearly all cases of the disease. Even in non-inflammatory diarrhœa they become tumefied so as to be distinctly visible and somewhat elevated. The mesenteric glands are ordinarily enlarged except in very young infants.

The prognosis in a large majority of cases is favorable, especially under homœopathic treatment, more particularly if also a careful selection of food is made so soon as the case is taken in charge.

Many recover from a state of feebleness and emaciation, which, occurring in any other pathological state, would be almost necessarily fatal. The most unfavorable symptoms in this disease, except those due to extreme prostration or collapse, arise from the state of the brain. Rolling the head, squinting, feeble action of the pupils, spasmodic or irregular movements of the limbs indicate the near approach of death.

Enteritis and colitis of childhood closely resemble the same affections in the adult. There is not generally such an extensive inflammation of the intestines, but the seat of the morbid process can be more distinctly located as enteritis or colitis.

Food seems to have such an influence upon the production and continuance of entero-colitis that I think it quite possible, by judicious diet, to exclude this prostrating disease from the households of our better class of people. The use of fresh meat in hot weather I consider decidedly pernicious. It is difficult to keep it sweet and pure in the best households, and far more so in small houses where the accommodations are few. We can substitute other food for beef, mutton, pork and veal, the four meats ordinarily used. Cheese, butter, eggs, milk, olive butter (or cotton seed oil), egg plant, potatoes, and tomatoes may be so prepared as to do away with the use of meats to a very great extent.

Oatmeal, barley, the different cereals, and innumerable farinaceous preparations, with which the markets have been crowded the last few years, can be made very nourishing to the human system at all seasons.

Vegetables and fruits are naturally intended for summer diet, although procurable at all seasons throughout this country.

The judicious use of fruit will counteract those derangements

of the system known as "bilious attacks," almost as quickly without as with medicine.

By living so as to exclude a tendency to intestinal derangements we know not how much real illness we are "nipping in the bud."

Treatment.—When called to cases here described, as much care should be given to the selection of food as to the remedy. If we prescribe medicines only, our patients will improve very slowly, or get better and worse simply because the irritation has not been removed. In many cases milk is the chief cause of trouble. It is vomited in curds and passes the bowels undigested. To deprive the child of milk and substitute farinaceous food for days or weeks is the best step toward curing the case.

Among the many preparations of farinaceous food I have had the best success with the preparations made by Zimmerman, of Pittsburgh. His substitute for mother's milk and barley oat foods, generally achieve wonders among the little folks.

Blair's, Crew's and Hubbel's prepared wheat have done noble work for me. Imperial granum, papoma cereleana, kinder essen, Nestle's food and others have done equally well.

Many home-made preparations are about as good in some cases as any above named, if carefully prepared. The boiled flour ball, pap, farmer's rice, biscuit and cream, soups, roasted potatoes, stewed tomatoes strained, are very beneficial in many cases.

Medical Treatment.—The best therapeutic hints on the above subject I find in Duncan's Diseases of Infants and Children; Raue's Pathology and Therapeutics; Lilienthal's Therapeutics, and Bell and Laird on Diarrhœa.

Among the remedies named the following are the most prominent: Æthusa, antimon. crud., arsenicum, calcarea carbonica, kreosotum, mercurius sol., podophyllum p., sulphur and veratrum alb.

Authorities consulted: J. Lewis Smith's Diseases of Infancy and Childhood; Reynolds' System of Medicine; Quain's Dictionary of Medicine.

DISCUSSION.

Dr. Hasbrouck did not hear mentioned in the paper on intestinal worms, a remedy which had always served him well in the expulsion of tape-worm, namely, pelleterine. The only symptom

which indicates the presence of worms beyond all doubt is their passage in the stools. The best treatment in cases of pin worms is the inunction of the anus with vaseline or lard, immediately following an injection of salt water.

Dr. Walker had met with four cases of umbilical hæmorrhage similar to that reported by Dr. Mansfield. All of them were fatal, and in each case the physician was censured for neglecting to ligate the cord properly. In one of the cases complicated with jaundice a post-mortem examination revealed an unusually large umbilical vein extending up to the liver and heart.

Dr. J. S. Skeels said that endocarditis during fœtal life might explain the large size of the umbilical vein in Dr. Walker's case. Many cases of convulsions, if thoroughly investigated will be found to be due to mismanagement of the cord at birth. The best exposition of this subject is by Dr. Charles White of London, published in 1791. He takes great pains to bring the subject before the profession, and shows the consequences of tying the cord too soon.

Dr. Betts remarked that considerable attention had been paid to this subject of ligating the cord. We have heard of the plan of leaving the cord untied and of tying it. At the present time, we all agree that the best plan of treating the cord after the birth of the child is to follow nature as closely as possible. When there is no physician to interfere, the cord is severed by violence at a point three or four fingers' breadths from the umbilicus. We should be careful to leave a greater length of cord attached to the umbilicus. We are too apt to be too hasty in ligation. Be sure to wait until the cord has ceased pulsating before ligating it. Sometimes, in our haste, we are apt to use material for ligatures furnished by the nurse. This may be too fine or too coarse. The physician should carry with him the necessary cord. Dr. Betts was in the habit of dressing the umbilical cord with absorbent cotton. There are some cases of hæmorrhage from the umbilicus which cannot be attributed to carelessness on the part of the physician. A case had been under his observation two years ago. Soon after the ligation of the cord, oozing occurred and kept up persistently; after that was stopped, capillary oozing from the gums set in. The child finally died. No remedy will cure all of

these cases. They are cases of hæmophilia which is a constitutional defect which cannot be remedied easily.

REPORT OF THE BUREAU OF SURGERY.

Dr. L. H. Willard, chairman of the Bureau of Surgery, presented the following papers, which were accepted and referred to the Publishing Committee:

Hepar Sulphur in Anthrax, by J. E. James, M.D.

Bryonia in Injuries of the Spine, by L. H. Willard, M.D.

The Radical Operation for Inguinal Hernia, by J. H. McClelland, M.D.

Dislocation of the Humerus, by L. H. Willard, M.D.

Foreign Body in the Rectum, by I. Lefever, M.D.

HEPAR SULPH. IN ANTHRAX (CARBUNCLE).

BY JNO. E. JAMES, M.D., PHILADELPHIA.

No one remedy will cure every case of the same disease, and great care should be exercised in the selection of the remedy every time. From a careful study of hepar sulph. I have been convinced that it will prove the similimum in the average carbuncle. I was led to its use first by my knowledge of its power in converting unhealthy ichorous pus into laudable pus, and the relief of severe pain which this change affords; also its power to favor the suppurative process and hasten the discharge of the slough, adding the symptom so frequent in carbuncle, the formation of boils or pustules around the anthrax a confirmed symptom of the remedy. With what result I will leave the following cases to determine.

Case 1.—Mrs. H——, aged about 60 years; large fleshy woman with frequent attacks of jaundice. Was called in December, 1879. Found raised, flat, purplish swelling on left thigh; it had a doughy feel for a space larger than a silver dollar; for a considerable distance around was red, swollen and painful with two

prominent indurated and painful spots like boils; pain intense, no sleep for several nights. Hepar sulph.^{2x} in water was given, and upon the second night some sleep was had, pain having been partially relieved. The pus was changed from ichorous to free discharge of a more healthy character, and the small openings became larger and more numerous until the entire slough came away in one week, leaving a healing ulcer which was some two or three weeks in healing; the small boils began to disappear at once after taking the hepar, and in three days were entirely gone. When the ulcer had about healed, a second carbuncle or at least a flat, purplish and painful swelling showed itself about six inches from the first. I was called before evidence of suppuration had shown itself. Hepar as above was given and in one week the part was entirely healed without any suppuration.

In this case hepar was the only remedy used; poultices of flaxseed and elm was used until suppuration ceased.

Case 2.—Mr. R——, aged 75. April, 1883, was called to see a carbuncle on left side of back extending from upper border of scapula downward about six inches, with some small pustules around it; had been suffering from it for over two weeks and had taken various remedies, arsen. and lachesis the most constant, with no relief; had no sleep for ten days in consequence of pain. Poultices seemed to aggravate and cold water cloths were applied with relief and hepar sulph.^{2x} Several naps were had the first night and pain gradually decreased, while pus changed rapidly and became profuse. Offensive odor was nearly all lost in three or four days; slough was cut away as fast as it loosened. In three weeks he was discharged with a granulating ulcer; the ulcer was some two months before it was cicatrized, probably because of his age and general feeble condition. The weakness and prostration, so marked when I first saw him, had greatly improved before the slough had entirely come away—of course the strongly nutritive diet had been used.

Case 3.—Mr. W——, aged 40. July, 1883, was called and found a carbuncle of right thigh of a diameter of nearly three inches; had it for a week; exceedingly painful and leg swollen, no evidence of boils or pustules; several openings and center looking gangrenous; poultices were at once applied and hepar

sulph.^{2x} given; some sleep the first night. While the pain was at once abated the slough seemed to enlarge, otherwise the process followed the same course as in the other cases. The entire slough came away in two weeks leaving a healthy ulcer, and in ten days after was entirely healed over.

CASE 4.—Miss H——, aged 37. In August, 1883, supposed she was bitten by some insect on forearm. A carbuncle, size of silver half-dollar, resulted. Very painful, with three spots like boils near it. A poultice and hepar sulph.^{2x}. In two days a free discharge with complete abatement of boils and great relief of pain. The process of discharging of slough was rapid and is now well. After taking hepar sulph. for about a week she concluded to let nature do the rest. A boil came the following week, which pointed and broke, and it is also now about healed.

The aborting of the pustules and boils in each case except the last, and in that the medicine was not continued long enough, the remarkable relief from pain (pain did not cease, but was bearable and did not prevent sleeping), the rapidity with which the suppurating stage was gone through with, were all due, I think, in a great measure to the remedy.

BRYONIA IN INJURIES OF THE SPINE.

BY L. H. WILLARD, M.D., ALLEGHENY.

C. C——, aged 19 years. On September, of last year, this lad was going down the cellar stairs, slipped and fell backwards striking his back at about the junction of the dorsal and lumbar vertebræ on the edge of the steps. A physician was called, who examined him carefully and pronounced the injury a simple one and allowed him to go about. One week afterward my attention was called to him, his parents fearing that there might have been some mistake made, and as I had known him since childhood.

I found no injury to the spine; neither fracture nor prominent swelling and but very slight pain on deep pressure. There was no pain on forcibly pulling his lower extremities while his shoulders were fixed, or when the vertebræ were pressed together,

or on flexion either forward, backward or laterally. He could walk and was cheerful. His bowels were regular and had moved twice naturally.

I flattered myself that the examination revealed no lesions but what would get well in a few days, enjoined rest in a recumbent position, but allowed him to move about occasionally. This latter was very bad advice, for in four days I was sent for again and found that he could neither walk nor stand nor even sit up in bed. The spine was very tender at the seat of the injury but no lesion of the vertebræ could be found. The superficial surface of the back was so hypersensitive as not to allow the lightest touch. His appetite had failed. He was sleepless at night. There was tingling in the feet but not much in the hands. Movement of the feet was painful. He was in a very unfavorable condition and instead of the prospect of a speedy recovery there was a slow lesion to contend with, either irritation of the cord or effusion into its membranes. I was afraid paralysis would follow as he could not move his feet. Belladonna[3] was given and warm applications made to his spine.

Under this treatment he slept better and his appetite improved. After the third day arnica[3] was given during the day, a dose every two hours, and if he was restless at night, belladonna[5].

He remained in this condition, without improvement, for two weeks, when, on consultation, a plaster of paris jacket was proposed and applied. This seemed to give so much pain and discomfort that it had to be removed.

The pain in the back was very great, with slight enlargement of that part of the spine over the first lumbar vertebra. All motion gave pain. He had considerable thirst and was very restless. Bryonia[3] was now given every two hours for the first day; every three hours the second day, and then continued three times a day for two weeks.

His improvement was gradual and satisfactory. There was less pain on motion; he could move his feet with more freedom; he slept better, resting better at night.

Thinking that the remedy had been given long enough, it was at this time omitted and nothing was given. The improvement did not continue, but on the contrary he grew worse, the same old pains returning.

Bryonia was again given with the same result as before Thinking that the alternations of improvement and relapse might be inherent to the nature of the injury, I discontinued the use of bryonia and he again became worse. The third time bryonia was given and the improvement continued.

The parents being very anxious, I proposed that they should call in some other physicians, of a different practice to examine him, which they did, and their diagnosis confirmed mine. Their prognosis was very unfavorable; abscesses, paralysis and death were spoken of as probable. The parents not wishing to change treatment, I resumed charge of the case.

Bryonia was the only medicine given.

Two years have now elapsed since the injury. He walks about with crutches and is steadily improving and growing, being now nearly six feet in height. All pain has disappeared or is only made manifest by over-exertion.

In looking back at this case I feel confident that bryonia was the agent that arrested his disease and promoted his recovery. We might say that in injuries of this kind time heals when medicine does not, but the beneficial effect of the remedy was too well marked to allow us to doubt the cause of the recovery.

RADICAL OPERATION FOR INGUINAL HERNIA.

BY J. H. MCCLELLAND, M.D., PITTSBURGH.

Three or four years ago the Bureau of Surgery of the American Institute had under consideration the surgery of the intestinal tract. One of the excellent papers on that occasion was one by Dr. C. M. Thomas, on the radical cure of hernia. In this paper the subject was reviewed thoroughly, making it unnecessary for me to go into the history of it at this time. Previous to this I had operated under antiseptic precautions by cutting down upon the hernial sac, emptying its contents into the abdominal cavity, invaginating the sac by returning it as completely as possible into the cavity and then sewing up the aperture with catgut ligatures.

Although this savored somewhat of modern surgery and was of course new to me, it was, nevertheless, like much that is

modern, hoary with years. All along the centuries back to Celsus, venturesome surgeons had practiced, revived and re-revived this and kindred operations for the radical relief of this most prevalent malady. Success crowned many such efforts, but failure and repeated disaster caused conservative surgeons to hesitate and substantially abandon the practice as hazardous.

The rise and progress of antiseptic surgery has naturally invited once again a revival of surgical interest in this very bothersome lesion, a thing not to be wondered at when we remember that every hernia is a veritable sword of Damocles.

And although much has been said of late derogatory of the claims of the antiseptic method, I believe sufficient evidence is already on record to establish the fact that these operative efforts may at least be much more safely made.

Recent experience has induced me to introduce the subject at this time for the purpose of urging upon the attention of the members of this society the propriety and importance of making the operation here described (or a similar one) in recent cases of inguinal hernia.

The method I have pursued is not materially different from that practiced by others, and has the merit of extreme simplicity. It is substantially as follows:

Incision is made over the hernial tumor and the sac carefully exposed. The hernia is now returned if it is reducible without opening the sac. If necessary the sac is opened in order to effect reduction. If the sac has not been opened it is invaginated and with cat-gut threaded in a needle similar in form to the aneurism needle, the hernial aperture is simply closed with one, two or more stitches; the wound is closed, having proper drainage and antiseptic dressings. If the sac has been opened, it can be removed in whole or in part, the stitches then introduced and special care taken to secure direct drainage. Where healing has occured by granulation, I believe the results have been even more satisfactory than when union has been immediate.

I am aware that in old hernias there are some recurrences to be expected, but an operation so simple should at least be tried.

In recent and especially small hernias I am satisfied that the proportion of successes abundantly justify the operation in almost every case.

I might say in conclusion, that in my cases there has been observed scarcely an appreciable rise of temperature, from first to last.

DISLOCATION OF THE HUMERUS.

BY L. H. WILLARD, M.D., ALLEGHENY.

On the 31st of last month (August), Mrs. B——, aged 77 years, slipped off the porch of her residence and in falling threw out her right arm to save herself, and received a severe injury to her shoulder. A physician of the neighborhood was called in who, after an examination, pronounced the injury neither a fracture nor a dislocation and recommended carrying the injured arm in a sling. The lady being a former patient of mine, and the arm getting no better and being very painful, I was called in about a week after the accident. I found the arm in a sling in close apposition to the side of the body, no projection of the elbow, nor, apparently, much deformity, but immediately below the acromion process there was a depression on elevating the arm. I called her daughter's attention to what I then thought must be a dislocation, but she assured me, as did another daughter, that her mother's arm on that side was always in that state.

The symptom of dislocation as affirmed by Dugas and many others was now tried. It failed to show any dislocation; the patient herself could very easily place her hand on the opposite shoulder and grasp it firmly, while the elbow was in close contact to the side of the chest. During the time these manipulations were being made the patient stated that the other doctor had made the same movements and when she had grasped the shoulder with the hand of the injured arm he said there could not possibly be any dislocation. After the several signs of dislocation had failed, we tried for fracture of the head of the bone, of the glenoid cavity and of the scapula, but could elicit no crepitus nor detect any fracture. Not being satisfied about the seeming deformity, although being positively assured that such had always been the case, chloroform was suggested but objections were so strongly made to its use that we replaced the arm in a sling, at the same time assuring the patient and her family that there was something wrong

with the shoulder and that a thorough relaxation of the muscles by the use of an anæsthetic was necessary before a positive opinion could be given.

It might here be mentioned that the patient has a curvature of the spine, posterior and left lateral, which naturally throws her forward and inward.

The next day Dr. Chantler and myself visited the patient, who assured me that the only thing necessary to give her rest was to keep the arm close to the side and that a bandage applied with this in view was all sufficient. In making our examination, I was fully impressed with the fact that there must be a dislocation. So sure was I that we refused to do anything for her relief unless an anæsthetic was used. A reluctant consent was given on account of the patient's age, she being seventy-seven. Dr. Chantler administered the anæsthetic, first giving a half ounce of brandy, then ether, afterward, a few whiffs of chloroform. When the patient was completely insensible, the arm was raised, the forearm flexed, when, rotating the humerus upward, outward and downward, the head of the bone slipped into the glenoid cavity with a distinct snap and the deformity was gone. The motion of the arm was as good as ever, no fracture of any kind only a simple anterior glenoid dislocation.

The interesting part of this case was the complete failure of that sign given by Dugas and quoted by numerous authors as a never failing symptom of dislocation of the shoulder.

This was the source of the error of her first physician, who trying this symptom failed in his diagnosis. When tried by myself in the presence of Dr. Chantler, both of us made sure that we had the elbow close to the chest and the hand grasping the opposite shoulder. Measurements had been taken, but the length of the arms corresponded. It may be that the curvature of the spine rendered the symptom faulty, but of this I am certain that it is the first time that I have found Dugas' sign of dislocation of the shoulder fail me.

FOREIGN BODY IN THE RECTUM.

BY ISAAC LEFEVER, M.D., HARRISBURG.

A year or more since, a gentleman about 55 years of age, residing in the eastern part of this State left home with the intention of coming to this place and then taking a trip up the Cumberland Valley. At the time he started from home he did not feel very well, but was not so much indisposed as to interfere with his traveling. On his way he stopped at the residence of a married daughter, with a view of remaining there over night. Early next morning he was awakened by pain in the lower part of the abdomen, which for a time was very severe: the pain he described as being sharp and cutting in character. Not wishing to disturb the family he remained in bed, lying very quiet, and after about an hour the pain became easier and he fell asleep. In the morning after he arose, not feeling at all well, he went to a physician near by, from whom he received two boxes of pills: one of which contained pills of sulph. morph., one to be taken every hour until the pain had ceased, and then one of the other kind of pills every two hours until the bowels were freely operated on. The same day he came to Harrisburg, and in the afternoon was taken very sick; had pain in abdomen, distressing nausea, vomiting some and purging. One of our physicians saw him and furnished prescriptions, which resulted in his procuring a two-ounce mixture, containing, besides other acrid ingredients, a considerable quantity of tinct. caps. Of this he was to take a teaspoonful every hour or two until the vomiting ceased. He also was furnished with a box containing twenty-two cinchonidia pills, of two grains each, one to be taken every two hours.

Next morning he called at my office. The vomiting had ceased and there was not much pain in the abdomen. There seemed to be a tendency to diarrhœa, but the greatest complaint was from what he believed to be piles, to aggravations of which he was subject. He described the pain as being very acute about the anus and upward in the rectum, and that when he sat down the pain was much worse. I gave him nux vom.[30], to be taken every two hours. The same evening he returned to my office, saying that the pain was much worse, so that he had no rest anywhere—never

had such pain from piles before—kept moving about all the time, his countenance showing a great state of excitement. At the time he called there were several other patients present, and he manifested no little impatience until they were gone. After some hesitancy he agreed that I might examine the piles, then telling me that there was something hard like a piece of wood projecting from one of the tumors. He seemed so fearful of being touched that it was with difficulty I could induce him to remain quiet long enough for an examination. On passing my finger to the place, I felt, as he said, some hard, pointed substance, but it was protruding from the anus, and there was very little evidence of piles externally. Putting a finger on it firmly, I found it was movable, and the slightest motion increased the pain very much. I took hold of it with my thumb and finger, and after some manipulation and exerting considerable traction, I succeeded in removing the object.

An examination thereof proved it to be a plate of bone having very sharp points and rough edges, looking very much like a piece split off from the outer surface of a rib of a beef. It was triangular in shape—one of the angles being nearly a right angle—and the following dimensions: base $\frac{15}{16}$ of an inch in length; perpendicular $1\frac{3}{16}$ inches, and the hypothenuse $1\frac{3}{8}$ inches. One of the surfaces was convex and quite smooth, the other slightly concave, quite rough and apparently cancellated, part of which structure was removed, leaving the hard vitreous-like plate of the bone remaining. The patient had no recollection of ever having swallowed anything of the kind, and seemed amazed on seeing what it was after it being washed. To my mind it would be a very difficult undertaking to swallow so large a piece of any substance, and more particularly so where the points and edges were so rough and sharp, as was the case in this instance.

The gentleman started on his trip next morning after the removal and returned in about a week or ten days afterward. He called to say to me that he felt well—that all pain had disappeared very soon after the removal of the piece of bone, and there was then no indications of piles.

DISCUSSION.

Dr. Skeels stated the case of a gentleman who had fallen and hurt his shoulder. The physicians who first had charge of the case could discover nothing wrong about the joint. Finally the patient came to him and he (Dr. Skeels) also found everything as he supposed normal. The patient could put the hand of the injured side on the opposite shoulder. About two weeks afterwards, while superintending some work, his shoulder gave a snap and everything was all right again.

Dr. Morgan said that the dislocation of the long head of the biceps might account for the symptoms in Dr. Skeels' case.

Dr. J. E. James thought that Dr. Willard's case of dislocation evidently had elongated ligaments about the joints. The ligaments must have been long to have allowed this movement of the hand to the opposite shoulder. If the joint had been in a normal condition that symptom would have been successful in detecting a partial dislocation. Dr. James also reported a case of hernia in which he did not stitch the external ring after the operation. The hernia consisted of intestines and omentum. The stitches were not passed through the mass in the ring as it was not considered necessary on account of the inflammation already present. The case progressed favorably until the other day the hernia returned. There is now no danger of strangulation as the opening through which the hernia protrudes is very large.

Dr. McClelland related the case of one of the students at the Hahnemann Medical College. This young man developed an omental hernia which passed on to gangrene. A mass of omentum the size of one's fist was removed. In that case the stitches referred to were not introduced. The patient recovered with a complete cure of the hernia and he is now practicing in the west. Speaking of the effect of hepar, as suggested by Dr. James, Dr. McClelland's experience did not agree with that of many of our school. It has a beneficial effect on the process of suppuration but he did not believe that one potency promotes suppuration and another potency checks it. Hepar tends to make suppurative process approach nearer to the normal.

Dr. Willard had used carbolic acid and hepar to promote

rapid suppuration. He did not accept Dr. James' explanation that there were relaxed ligaments about the shoulder joint in the case reported or the bones would not have gone in place with a snap.

Dr. James asked if the muscles could not have caused the snap.

Dr. Willard replied that if the ligaments were relaxed then the muscles would have been also, especially if the patient was under the influence of chloroform. He then gave his explanation of the unusual phenomenon present in the case, namely, the presence of a posterior and lateral curvature of the spinal column.

Dr. McClelland did not believe that there is such a thing as a partial dislocation of the shoulder joint. The explanation of the case related by Dr. Skeels is probably that given by Dr. Morgan, namely, dislocation of the long head of the biceps.

Dr. E. Hasbrouck mentioned the tarentula as a remedy recommended by Dr. Navarro for the lancinating and burning pains of carbuncle.

Dr. Richard Burr had used honey in the poultices applied to carbuncles with good success.

Dr. Betts mentioned bryonia as a remedy in carbuncle, even when there are those characteristic suppurating nodes around the mass which are often indicative of hepar. The knowledge of the fact that bryonia was useful in pelvic cellulitis led him to prescribe the remedy in carbuncle with successful results.

Dr. T. S. Dunning related a case of carbuncle treated by phytolacca. There was a hard bluish swelling on the left cheek. It was the size of a dollar with four or five yellowish points about to break through. A crucial incision was made, poultices of flaxseed with phytolacca were applied and phytolacca was given internally. The patient recovered.

Dr. J. E. Jones said that he had reported a case in which the carbuncle covered a space of sixty-six square inches. The slough coming away left large enough hole for one to put in his fist. Carbolic acid locally and hepar internally probably did much to limit the suppuration. Belladonna had great influence in relieving the pain.

Dr. E. H. Phillips of Cape May, mentioned agrimonia eupatoria in the poultices as a remedy for carbuncle. It acts as

an antiseptic, soothes pain, lessens inflammation, checks suppuration and heals quicker than any other remedy.

Dr. Newton May mentioned a case of hernia in which sulphur[6] cured. He merely offered the case for what it was worth.

Dr. M. M. Walker reported the case of a lady coming home after a walk through the snow, in trying to disengage her overshoes from the heel with the thumb, felt something give away. Dr. Macfarlan examined the case and found a dislocation of the tendon of the adductor pollicis.

Dr. Morgan said that most of our school did not know of the origin of the use of hepar in suppuration. An old fogy pioneer in homœopathy, in treating a case of abscess, permitted the patient to smell of the bottle of hepar and an hour afterwards the abscess broke.

REPORT OF THE BUREAU OF MATERIA MEDICA.

Dr. Hugh Pitcairn, chairman of the Bureau of Materia Medica, presented the following papers, which were accepted and referred to the Publishing Committee:

Homœopathic Materia Medica, by I. Lefever, M.D.

Proving of White Jessamine, by L. H. Willard, M.D.

A Repertory of Medicines Affecting the Posterior Nares, by E. A. Farrington, M.D.

Verifications of Pulsatilla and Sulphur, by R. C. Allen, M.D.

Verification of Lycopus, by H. H. Reed, M.D., Halifax, N.S.

Verification of Baptisia Tinctoria, by J. E. Jones, M.D.

Provings of Arctium Lappa, by Chester, Delaware and Montgomery Counties' Society.

Proving of Piscidia Erythrina, by J. C. Morgan, M.D.

Schema of Provings of Picrate of Zinc, by Hugh Pitcairn, M.D.

HOMŒOPATHIC MATERIA MEDICA.

BY ISAAC LEFEVER, M.D., HARRISBURG.

So much has been written upon the subject of Materia Medica in its relations to homœopathy, that it is difficult to treat of it in such a manner as to offer much that is new or of real value in the further discussion of the topics which it presents. It is a law almost universal in the vegetable kingdom that no grain is produced without being accompanied by more or less chaff; and in the process of securing the grain, it is almost an impossibility to separate every particle of chaff or to secure every grain. When we see a pile of chaff, the mind naturally infers, therefore, that there are some grains scattered here and there through the mass of valueless matter. True, they may be but few in number, but if they can be separated so as to make them available for the purposes to which they are applicable, they prove to be intrinsically valuable. So, although surrounded by much that is of little value, a thought may be presented by almost anyone who attempts to make known his views upon any subject, notwithstanding many of much greater ability may have preceded in the same line of reflections. While I feel and know my want of qualification to fulfill satisfactorily to myself and to others the duty assigned to me by the appointment to the Bureau of Materia Medica, yet it would be unbecoming in me not to make an honest attempt to discharge the trust. I may fail, but a proper respect for the wishes of those who call upon me requires that I should not pass their request unheeded by. Entertaining the hope that a few grains or thoughts, worthy the attention of my fellow laborers in the good cause of ameliorating the pains and distresses of those who are the subjects of diseases, may be found in the result of my lucubrations, I herewith submit what I have written, and ask the indulgent consideration thereof by the members of the society.

It has been appropriately said by a distinguished physician, that the "study of the Materia Medica is one of the greatest importance, it is a study of the tools with which the practitioner has to work in the cure of disease." * Without a complete knowledge of the

* Dunglison's Dictionary. Article, Materia Medica.

nature of those tools, and the effects or results which follow their use, no one is fitted to use them intelligently or with benefit to those to whom they are administered. To the homœopathist materia medica is a very different matter, when compared with the view generally taken of it from the standpoint of the so-called regular physicians. We look upon all the actions of drugs as poisonous—that is, that they act in a greater or less degree, when given in material or appreciable quantities, "in a noxious manner on the vital properties or the texture of an organ;"* and that their use is calculated to derange, in place of aiding or supporting a proper vital action when taken in a state of health. In the cure of disease, all the good which can be done by medicines is to aid nature in resisting the morbific cause and throwing it off from the system. If any more than a sufficient quantity of any drug is given to accomplish this object, it interferes with the curative effort—the vis medricatrix natura, if you please—deranges the actions of the system still further and prevents a return to health. How important is it then that we know just how much to make use of, as well as what is the particular remedy to be administered.

Until the time of Hahnemann, it was too much the custom to judge of the powers of medicines by post-mortem examinations to the exclusion of investigating their effects upon living tissues and bodies. Little or no attention had been paid to such observations as those last alluded to, until his attention was directed thereto by the inquiries he was led to make while engaged in philosophical pursuits. The homœopathist does not ignore the teachings of post-mortem appearances, but he concerns himself much more in closely observing the phenomena occurring in living beings. The former he looks upon as evidences of united action, in many instances—a union of the destructive power of disease aided or aggravated by the administration of powerful drugs. Hence, to judge of the curative virtues of the drugs administered, from such manifestations, can afford no just criteria for believing that they can be of benefit if administered in future cases where similar symptoms present themselves.

The homœopathist, taking his stand upon the principle, similia similibus curantur, commences his investigations by observing the

* Dunglison's Dictionary. Definition of Poison.

effects of drugs when given in a state of health. Nor does he give large quantities so as to produce a convulsion in the economy. He endeavors to ascertain the least possible quantity which will produce an impression without causing any injurious results. His wish is to work with and aid the natural powers to overcome the noxious principles where they have entered into the system and produced that condition termed disease; and in order to do this effectually he must be intimately acquainted with the powers of the remedies he proposes to make use of.

It may be said, and with truth, that there is much useless matter comprised in the symptomatology of many of the remedies made use of. Yet what should be omitted or what retained becomes a very difficult task to decide. No two constitutions are exactly alike in all respects; and hence, in proving any remedy, we must expect to find the symptoms varied in the detail, although there is an agreement in the principal features of the impressions. What might be considered, in one instance, the minor symptoms, so far as a particular patient is concerned, may prove to be eminently characteristic in another.

No one can retain all the symptoms of any remedy, the indications for the use of which are numerous, in his memory; but by continuous study, and particularly if in active practice, an approach may be made thereto. This cannot be attained without considerable mental effort and close observation of cases of disease as they may be presented. Where cases are thoroughly investigated the recollections thereof will be firmly impressed upon the mind and come to the aid of the busy practitioner in similar cases as they occur to him in the future.

One of the greatest difficulties many persons have presented to them when taking up the study of homœopathic materia medica is to divest the mind of the conviction that it is a necessity to have a material and appreciable quantity of the drug in the preparation of the remedy made use of. This is particularly the case with regard to those physicians who have been educated in the old-school doctrines. It is very hard for them to believe that the attenuation of any article they have been accustomed to use in massive doses will have an almost opposite effect when administered in very small quantities, or can have any effect whatever.

either curative or otherwise. This difficulty will always stare them in the face until they become fully convinced of the truth of the general law of cure advocated and insisted upon by homœopathists, but held up to ridicule by those who are opposed. Too many forget the principle and allow the mind to be taken up with the consideration of the minute quantity of the remedy given. To be successful as a practitioner, and true to homœopathic theory and principles, the law of cure must be kept continually in mind, and the result will be that there will be no disposition to abandon the minute dose, and no reason will be found for giving large portions.

Used in their crude state, almost without exception, drugs have more or less of a mechanical effect; and by their presence as well as in consequence of the peculiar properties they possess, are capable of producing irritative results. Very frequently they act by obstructing the free circulation of fluids in the capillary vessels of the mucous membranes by their presence in the fluids; or their irritating effects may have been exerted primarily upon the mucous membrane itself, inducing a condition more or less allied to inflammation, and thus causing an obstruction to the flow of the contents of these minute vessels. To overcome this serious difficulty is one of the offices of the materia medica of the homœopathist, for by his triturations and dilutions he removes all possibility of administering anything which can act either as an irritant to the most delicate membrane or be a cause of obstruction in the smallest of the capillary tubes. The same process of preparation removes all danger of injuries being caused from anything like chemical action. All then that can be claimed for our remedies is that they act upon the vital principle of the human organism; and, though given in such minute quantities, when considered from a material standpoint, as to be useless, the force imparted to them by the peculiar methods of preparation, renders them powerful for good and for good only.

How important is it then that we make ourselves intimately acquainted with the effects of the tools we have to work with, as well as to learn all we possibly can in regard to the principle upon which we expect them to act. Both are intricate subjects, and more or less hidden from our sight, requiring us to call to our

aid scientific acquirements of no mean order, so that we may acquire the knowledge to act well our part. A conscientiousness of duties faithfully discharged, the pleasure derived from the success of his efforts, by the blessing of God upon the means employed, in restoring to health and strength, almost from the very verge of the grave, loved ones upon whom the affections of many were centered, as well as the grateful returns made by patients themselves, will repay for many weary hours spent in severe study to qualify the physician to act in such a manner as to be the messenger of good to suffering humanity.

PROVING OF WHITE JESSAMINE.

BY L. H. WILLARD, M.D., ALLEGHENY.

"The white poison vine, or white jessamine, is a vine, the root of which is sometimes gathered for the gelsemium which it very much resembles in appearance, though it is of a lighter color, and the outer bark is covered with white specks or marks somewhat similar to those on young cherry or peach limbs and the lower parts of old vines become rough and have small tendrils that fasten upon the bark of trees and which are never seen on the gels. The bark of the vine is also more brittle and the leaves are always on long footstalks which are opposite, at the end of which are two opposite leaves almost exactly resembling the aristolochia serpentaria. The root is almost white, very tough, straight and about the same length of the medicinal root, and has a slightly bitter, disagreeable, nauseous taste. I never saw any of the flowers, though they are said to resemble the others in shape, but are snowy white with a slight unpleasant odor."—(Hale.)

The following interesting proving of white jessamine was made under very peculiar circumstances: A Mr. P., aged about 50 years, who is in the habit of doctoring himself and wife, as well as horses, for trifling ailments, had made in the first place some herb tea, of which he and his wife would occasionally take a dose for their stomach's sake. He also made a liniment for horses from the gelsemium root.

At one o'clock in the afternoon of June 29th, Mr. P. took about

a tablespoonful of the horse liniment which was made of the tincture of gelsemium root, having made a mistake in the bottle. He also gave his wife a dose of the same. Immediately afterward his wife grew sick at the stomach, when Mr. P. discovered his mistake and giving his wife a pint of salt and water, which acted immediately, he locked his house and started for my office. What follows we here give in their own language, as collected for me by Dr. Chantler.

Mr. P. says: "The first thing I felt after taking the medicine was a feeling of light-headedness. I imagined I saw different objects going about. My mouth and tongue were dry and parched. My mouth and throat felt as if they were paralyzed. I tried to speak but could not make those about me understand. I was asked questions, and I could understand what was asked me, but could not reply. On my way to the doctor's I staggered like a drunken man and would stop on the street and try to pick up plants, which I imagined I saw growing from the cobble-stones. I was arrested and placed in a cell of the station-house. I thought I saw worms and beautiful millers on the floor and grating of the cell and tried to catch them. I thought they had put a woman in the cell with me. After being in the cell for some time I thought the woman cried to me. 'Oh, Mr. P., help me!' I thought I ran to her help, and plunged my arm down the privy-vault (which was in the rear of the cell) to the arm pit, trying to relieve the woman. I cried for help. Two officers came, and I told them that a woman had fallen down the privy-vault. They tried to make me believe there was no woman in the cell with me. I insisted there was, and finally a light was brought by one of the officers and the privy-vault shown me, when I said, 'I can't see how so large a woman could get down and through so small a hole.'"

"There was a piece of plaster knocked off the wall of the cell. I imagined this bare spot was my wife, and would go every once in a while and put my hand on it to see if it really was Mrs. P."

"My vision was very much confused. I would see imaginary objects. My greatest idea was to hunt for plants. I would try to raise up the curb-stones to see if there were any plants under them."

"I knew and could realize that I had locked my wife up in the house, but could do nothing to help her. I could not control my actions. I wanted to go home, but for some reason I could not."

"The dizziness remained for several days; if I would turn around quickly I would fall down. I went to Dr. Willard's office but do not recollect seeing him."

Mrs. P. says: "I took the medicine just before dinner. Shortly after taking it I felt sick at the stomach. Mr. P. gave me some salt and water, which made me throw up, but I do not remember anything about throwing up. I felt in a sort of a half stupor from dinner time until night. I went around hunting for matches and would run against boxes and barrels, not knowing or remembering they were there, and would fall down without the least provocation. I thought Mr. P. was lying asleep on the floor, and I said to him, 'Oh, James, why don't you get up and help me?' I did not know Mr. P. had gone for the doctor. I thought the house was full of gypsies and I went up into the attic looking for them and found a horrid ugly tramp. After ordering him down I came down myself and found a party of friends who were performing some fantastic tableaux, and I thought they were trying to compel me to guess what the tableaux were. I said to a friend, 'Oh, let me alone, I am tired.' I took one of my friends for a gypsy, who continually put up something before her face and would go through such funny antics. I showed my friends some bottles and other things. I would grasp a bottle and my hand would go right through it. I said to a friend, 'Look here, Mary, can you put your hand through this plate.' It seemed that my fingers and hand would go through everything—plates, bottles, blankets, etc. After that I always kept my right hand and arm raised up for fear I would destroy everything. When I attempted to sit on a chair, it appeared that the chair would crumble beneath me and I would fall on the floor. I thought I would see a chair and would try to sit on it and there was no chair there. Finally I remained quiet for fear I would destroy everything in the house."

"A young friend came next morning to see us and I insisted on getting him his supper. I thought it was evening. I went down into the cellar to get some wood, found the hatchet, but no wood

cut. I came up stairs to my friend and said, 'Mr. P. does not allow me to cut wood.'"

"After this I have no recollection of anything. I do not remember seeing Dr. Willard until the second day, although he was here daily."

"The first thing I felt after taking the medicine was a sense of dizziness. I felt as if the brain was paralyzed. I could not control myself. My tongue was continually dry and parched."

A BRIEF REPERTORY OF MEDICINES AFFECTING THE POSTERIOR NARES, WITH COMMENTS AND SUGGESTIONS.

BY E. A. FARRINGTON, M.D., PHILADELPHIA.

It has become an opprobrium of homœopathic practice that post-nasal and pharyngeal catarrhs are frequently not cured by internal medication. Specialists, treating nose, throat and ear affections, are daily receiving patients who have been dismissed by homœopathic physicians as incurable, or who have become disgusted with the general practitioner. I grant that one who devotes his exclusive attention to a given subject should be better qualified therein than those engaged in common practice. But the question is not one of comparative success in the employment of internal medicine; it is one of contrast between local applications and legitimate homœopathy. If the system of Hahnemann is universally true, that is, if it is founded upon *law* and does not constitute a mere *rule*, it must as assuredly remove a post-nasal catarrh as a sore throat or a cold on the chest.

There are three modes of defence, one or another of which is invariably employed in defending homœopathy against a charge of inefficiency; *first*, that if one can obtain the similimum, the cure or relief will follow; *secondly*, a local affection is always a part of a more or less latent constitutional dyscrasia, and therefore cannot be permanently cured until the latter is; *thirdly*, the failure is claimed to be due to errors in selection or in potency, in repetition or in the administering of drugs singly or in alternation.

To all such illogical positions, I emphatically object. I believe that the similimum will help because I believe in the universality of the law; and consequently, I reject alternation of remedies. I accept the law because I think that it is logically deducible from revealed truth. If any one agrees with me here, my strictures do not apply to him. They apply to those who admit the truth of homœopathy, because they have tested it and have been satisfied from experience; and this class includes nearly the entire medical profession. Having proved homœopathy, then, in the same manner as did Hahnemann, the only reasonable position is that the system is effective because it cures. When, therefore, it fails, a consistent defence is not paucity of material and knowledge, but an earnest, painstaking and persistent series of experiments instituted as a crucial test.

With all due deference to specialists, they have not carried out this plan. Failing with the means at hand, they have felt compelled to preserve their reputations by resorting to collateral measures; for more is expected of them by the public than of the general practitioner. Specialists should spare no pains to institute provings. There are many unproved or partially proved plants and minerals, which are known to exert some sort of an influence upon the naso-pharyngeal passages. It is incumbent upon those most interested to thoroughly explore the subject and determine what this influence is in each drug. A few years ago we could not readily cure cases which now, since the introduction of sanguinaria nitrate and antimonium auratum, are easily relieved.

I propose to enumerate the remedies known to affect the posterior nares, and to offer some suggestions concerning a few not often employed.

The known drugs are: *Aconite*, *Æsculus hip.*, alumen, ALUMIN., anac., ant. crud., *ant. sulph. aurat.*, ARGENT. NITRIC., *ammon. brom.*, baptis., bryonia, baryta, *calc. carb.*, calc. sulph., carbo a., carbo veg., cepa, *coral. rub.*, coccus, *cistus*, *cinnab.*, chlor., digitalis, *eriodyction*, *euphrasia*, *fagopyrum*, ferr. phos., fluor. ac., gallic ac., granatum, HEPAR, helianthus, *hydrastis*, iod., iris vers., KALI. BICH., kali jod., KALI MUR., kreosote. lycopod., merc., merc. cor., merc. cyan., MERC. PROTOJ., MERC. BIJOD., mag. carb., mag. sulph., *mezer.*, *natrum ars.*, natrum carb., natrum phos.,

natrum mur., NITRIC ACID, nitrum, nux mosch., osmium, oxalic acid, petroleum, plumbum, PSORIN., phos. ac., *phytolac.*, *penthorum*, physos., phos., pæonia, rumex, rhus tox., saponine (quillaia), staphis., sumbul, SEPIA, SULPH., SILICA, sinapis nigra, SANG. NITR., *spigelia*, *theridion*, THUJA, tellur., ustilago, vinca minor, wyethia, yucca, zinc, zingiber.

Of these eighty or more drugs, some are so rarely indicated as to be of little value to the general practitioner, several are useful only in acute catarrh, and but a few offer the usual symptoms of chronic catarrh of the posterior nares. These few are: Alumina, ammon. brom., *antim. aurat.*, *argent. nitric.*, calc. carb., coral., cinnab., fagopyrum, *hepar*, *hydrastis*, *kali bich*, KALI MUR., MERC. JOD., MERC. BIJOD., *natrum ars*, NITRIC ACID, *psorin.*, SEPIA, SULPH., silica, SANG. NITR., *spigelia*, *thuja*. The relative value of this group is indicated by the variety of type, reducing those of the highest value to the two mercuries, sang. nitric., and kali bich. and mur.—a very small armamentarium for so stubborn a disease. But the list could be enlarged if specialists would test known symptoms and publish the results.

For instance, phosph., natr. mur., cistus, natr. ars., alumina, have glazed or varnished appearance of the posterior wall of the pharynx. Why not use one or another of these when such a state of the membrane obtains higher up? Alumina and nat. mur. affect the mucous membranes, causing scanty secretions, the latter drug being distinguished by smarting sensation; why, then, may not alumina be often used, especially as in addition it causes, scurf in the nose, plugging of the Eustachian tubes, snapping sound in the ears on swallowing or chewing; dropping of mucus from the posterior nares.

KALI MUR. often relieves hawking of mucus from the posterior nares; why not note carefully its effect upon the catarrh itself and report results at a future meeting? Compare also pæonia.

When the pharyngeal walls are varicose, pulsatilla, hamamelis, vespa, natr. ars., and phytolac., may be consulted. The first two have relieved the catarrh, though I have been compelled to follow hamamelis with some other drug to effect a cure. Vespa, like natr. ars., produces œdema and varicosis; the first caused purulent catarrh of the middle ear, and also recurrent tonsillitis, and ought

to be used; the second, with thickening of the mucous membrane, lasting for months, hawking of a thick mucus from the posterior nares, offers a valuble remedy for winter catarrh.

Fagopyrum pictures a common and very annoying form of the disease, one in which exposure is sure to increase the catarrh with rawness and dryness, formation of dry crusts, granular appearance of the mucous membrane and an intolerable itching and burning.

Sensitiveness to inhaled air is not especially important in acute catarrh but is in chronic. It calls for arsenic, natr. ars., corallium, hydrastis, lithium, osmium, kreosote, and probably fagopyrum.

Dryness of the posterior nares is not only in the latter remedy, but also in alumina, æsculus, sinapis nigra, wyethia, and a few others.

Æsculus, as well shown by Dr. T. F. Allen, suits colds extending from the posterior nares, adown the pharynx, with dryness, scraping and burning; at times secreted mucus drops low down and causes choking; patients are weak, with soft pulse, backache, constipation and piles. Why should we neglect this and devote our attention to the more familiar nux? Æsculus would relieve more promptly and more permanently.

Sinapis nigra has cured dryness of the anterior nares, and has caused dry sensation in the choanæ and pharynx; why not try it when, in addition, there is the characteristic condition of the mucous membranes: dryness, with at most scanty chunks of tenacious mucus secreted.

Wyethia I have never used; it is claimed to have produced and cured pricking dry sensation in the posterior nares. According to Hale it is useful in chronic pharyngitis, removing the granular appearance, and never failing to relieve *dryness of the pharynx and burning of the epiglottis.*

Penthorum sedoides belongs to a class of plants that do not act very deeply; still by reason of their acridity they produce catarrh, skin symptoms, and, some of them, hæmorrhoids. The penthorum ought to be tried when there is a *continual feeling as if the nose were wet*, but without coryza. Sense of fullness in nose and ears. Posterior nares feel raw as if denuded.

Osmium rivals the more commonly employed phosphorus. It is highly irritating to mucous surfaces, provoking coryza, sneez-

ing as from snuff; nose and larynx sensitive to the air. Small lumps of phlegm are easily loosened from the posterior nares and larynx.

Like phosphorus, it attacks larynx and lungs. Characteristic is *severe pain in the larynx, worse when coughing or talking;* hoarseness.

Ammonium bromidum is said to be effective when the patient hawks down a stringy, bloody mucus. Here it resembles sanguin. nitrate and kali mur., but is far inferior to either.

If the mucus is of a lemon-yellow color, not very fibrinous, sulphuric acid is almost sure to cure. It is only when it is tough and stringy that kali bich. claims precedence.

When hardened clinkers are hawked from the posterior nares kali bich., cinnabaris, sepia and teucrium are serviceable. The latter, suggested by Dr. Walter Williamson, Jr., is needed when very large and irregular masses are hawked down; cinnabar for dirty yellow lumps.

Saponine causes tough tenacious mucus in the posterior nares, extending into the larynx. Quillaia, one of the plants from which saponine is derived, has been quite extensively used in California by homœopathists for a cold in the head, contracted during warm, damp weather. Here it rivals gelsemium, both causing general lassitude and tiredness and weakness of the muscles—states of relaxation favoring colds.

Dr. August Korndoerfer has made some excellent cures with spigelia, guided by Hahnemann's symptoms: profuse discharge of mucus through the posterior nares; nasal mucus passes off only through the posterior nares. I have not been very successful in using it.

But, after all, the majority of cases call for such remedies as merc. jod., sang. nitric., antim. auratum and pulsatilla. And it is such accurately fitting remedies as these that I hope to see greatly increased in number by energetic provings, conducted by those whose ability to diagnose diseases of the nose qualifies them for the work.

Sanguinaria nitrate, given persistently—and nasal catarrh needs repeated doses—will often help when there are burning rawness and soreness in the posterior nares, and hawking of thick, yellow,

sometimes bloody, mucus. Pulsatilla acts better if the mucus is thick, yellow-green and bland; and merc. jod. when there is swelling of the glands of the neck and yellow coating on the dorsum of the tongue. Antim. auratum, proved under the auspices of Dr. C. Neidhard, causes increased mucus-secretion. In one prover it aggravated a chronic catarrh with increased discharge of a greenish-yellow mucus, more offensive than before. It is used by Dr. Hugh Pitcairn as a co-relative of the iodide of mercury. Nitric acid follows when dirty, *bloody* mucus flows; and mezereum in mercurialized patients when there are scraping, burning and rawness posteriorly; *thin, yellow, bloody discharge.*

In conclusion, I desire to say that, as many nasal catarrhs have a specific origin, no remedy, not active in influencing the cause, can materially relieve the catarrh. In addition to sulphur, kali jod., aurum., etc., we should consider theridion, confirmed by Dr. Korndoerfer as an introductory drug in scrofulous cases—thuja, well-known in sycosis, and invaluable when the discharge *is thick, green or bloody and green*—and psorinum, despised by some, but fully appreciated by others as often superior to sulphur.

For convenience I add a brief repertory, confining myself to the limited region under consideration.

1. NATURE OF THE DISCHARGE:—*thick yellow:* argent. nitric., aurum, natrum ars., hydrastis, calc. carb., berb., cinnab. (dirty lumps), kali bich., sul. ac., nitric acid, pulsat., spigelia, sulph., antim. aurat., sang. nitr., therid., natr. carb., hepar, lycopod., phos., kali sulph., alumina, rumex, calc. s., sumbul., mezer. (thin).

Green:—Berb., puls., thuja, kali bich., natr. carb., phos., sep., merc.

Plugs, clinkers, etc.:—Teucrium, kali bich., sepia, cinnab., lycopod., mangan. (yellow or green lumps), merc. jod. (blood-tinged), natr. ars.

Like tallow:—Coral., rub.

Irritating, corrosive:—Ars., ars. jod., kreos., carbolic acid.

Brown:—Kali bich. (bloody and offensive).

Bloody:—Canth. (and tough), arg. nit. (yellow mixed with clots), hydrastis, nitric acid, sepia (with yellow-green shreds), sang. nitric., kaolin, kali bich., lach. (bloody pus), phos. (in streaks), sul. (in threads), mez.

Offensive:—Aurum, graph., merc. (trickling mucus), sul., thuja, nitric acid, natr. carb., elaps (relieved a case for me marked by disproportionate fœtor), therid., asafœt., lach., kreos. (old people), tellur. (herring-brine), antim. aurat. (?)

Stringy:—Am. brom., sulph. ac., kali bich., cinnab., hydrastis, coccus cacti, yucca (and greasy-looking).

Scanty, tenacious:—Sinapis, alumin., osmium (small lumps), natr. mur., phos., saponine (tough, tenacious), phytolac.

2. MEMBRANE DARK:—Lach , phytol., amm. brom., yucca. *Red:*—arg. nitric.

3. SCABS, ULCERS:—Argent. nitric. (with yellow scabs), kali bich. (punched), alumin., calc. carb., graph., lycop., puls., sep., sil., zinc, psorin., thuja, therid., lach. (bloody), baryta (and behind uvula), kali carb. (foul crusts), fagop.

4. CHOANÆ: *too dry:*—Silica, sepia, fagop., rumex, sticta, wyethia, æsc. h., alum., sinapis, zinc, sanguin.

As if open:—Fluor. ac., iod., natr. mur.

5. OBSTRUCTED:—Anac., calc. s., hydras., iris vers., kali jod., etc.

6. EARS AFFECTED:—Merc., vespa., phytolac, gelsem. (itching in Eustach., also, pain in ears), nux and silica (both itching in Eustach. tubes), kali bich., rumex (ear feels stopped, voice sounds strange—relief in one case, but not cure), alumin., (Eustach. stopped with mucus), graph. (Eustach. stopped up).

On swallowing, crackling sound, graph., hepar.

Iodine (catarrh Eustach. tube), lith. carb., nitric acid (Eustach. obstruction), petroleum (passages dry, whizzing in ears).

7. SENSITIVE TO INHALED AIR (chronic cases):—Ars., nat. ars., ars. jod., coral., hydrastis, lith. carb., osmium, fagop., kreos, ferr. phos.

8. NOSE FEELS WET:—Penthorum.

9. RAWNESS, scraping, soreness:—Æsc. h., merc., merc. jod., mez., nux vom., sang. nitric., nitric acid, chlor., kreos., hydras., iris vers., natr. ars., ars., ars. jod., ferr. phos. (on inspiration), mag. carb., oxalic acid, phos., phos. ac., osmium, carbo veg. (on coughing or swallowing, soreness), gallic acid, penthor., sepia, nitrum.

10. BURNING:—Æsc. h., arg. nitric., phos., osmium, ars., ars. jod., natr. ars., fagop, etc.

11. LIKE A FINE LEAF:—Baryta carb.

Like something hanging:—Yucca.

VERIFICATION OF PULSATILLA AND SULPHUR.

BY RICHARD C. ALLEN, M.D., FRANKFORD.

Pulsatilla.—I would like to record, if it will be of any value, an action of pulsatilla which came under my notice lately. I was asked, at one of my visits, by a patient to prescribe for a symptom which was independent of the sickness which I had been treating and for which I gave puls.$^{2x\ trit}$. The patient, a woman, had been confined five months previously. Of course her "monthlies" had not returned. The next day when I called, she said, "doctor, you gave me pulsatilla yesterday." "How do you know I gave you pulsatilla?" "Why," said she, "whenever my menses are delayed I take a dose of puls., and it immediately brings them on and I feel this time just as I have felt before after taking puls., and my 'sickness' came on last night."

Sulphur.—Another case I would like to mention, which was quickly relieved by sulphur$^{2x\ trit}$. A young lady, unmarried, had not had her "monthlies" for a year. She had been under allopathic treatment until she came to me. A singular condition in her case was she did not feel any way sick or unwell. Her appetite was good, she slept well, had no headaches, no flashes of heat, no palpitations of the heart; in fact no symptom whatever to indicate a remedy. I gave sulphur empirically. In about eight days her sickness came on, lasted three days, and was natural in every respect. In four weeks they returned and were again natural, which was four weeks ago. She took two powders a day.

VERIFICATION OF A PROMINENT SYMPTOM OF LYCOPUS VIRGINICA.

BY H. H. REED, M.D., HALIFAX, N.S.

A verification of symptom 179 of lycopus virg. in Allen's Encyclopædia. The case was one of orchitis from chronic prostatitis with bloody urine and suspected renal calculus, but none had been passed. The pain was confined to the left testicle exclusively and the lycopus cleared it away like magic. It had no influence on the orchitis, however, which rapidly yielded to puls., which is almost my sole remedy in these cases.

VERIFICATION OF BAPTISIA TINCTORIA.

BY JOS. E. JONES, M.D., WEST CHESTER.

Within the last few months I have been cognizant of four verifications of one prominent symptom of baptisia tinctoria, which is considered its characteristic one, viz.: "Body feels scattered about, tosses around to get the pieces together; cannot sleep because cannot get the pieces together."

Although the wording of the above symptom may not be just that of my patients, yet it approximates it very closely in meaning when expressing the duo or trio-existence, which the following cases exemplify.

Case first was that of typhoid fever in a young man of 22 years, and whose symptoms were going on from bad to worse until he was confined to bed with all the usual characteristic symptoms of that tedious disease.

In former years, having given baptisia tinctoria frequently in typhoid fever, expecting it, according to its printed commendations, to cut short the disease, and having been so often disappointed in the result, latterly I have ceased to rely upon it, and seldom think of administering it. So in this case I never thought of it until on the 10th or 12th day of the disease the patient remarked, "Doctor, I have such great trouble at night that I cannot sleep, and the idea haunts me when awake, that I am two persons and the two will not come together; they distress me exceedingly." The symptom brought to mind baptisia, and giving it in the 1x dilution, there was not only a prompt relief of the peculiar distress but by the fifteenth day the patient was so much better that he insisted on going to work. Knowing the danger of undue effort or the want of proper care in taking food in this disease before the expiration of the twenty-first day, I dissuaded him from the work, but on the seventeenth day he went visiting, from which he had no relapse. Virtually the disease was cured by the fifteenth day. By this case I am fully persuaded that typhoid fever can be cut short in its usual course if the homœopathic similium is used.

Case second was one of pneumonia in a gentleman of forty, very severe, implicating the lower half of the left lung and the

lower lobe of the right one. After continuing with high temperature, violent cough and bloody expectoration for four days, he remarked to me that he had not slept any for several nights owing to being in two or three parts which would not lie still or come together, and that resting on one constantly made it uncomfortable. This patient had other symptoms of baptisia tinctoria, such as tongue coated yellow along the centre with reddish papilla with edges and tip red, etc. The baptisia cured the distress and the pneumonia as by magic, and he was promptly on his feet in a few days.

Case third was also one of pneumonia in a man of thirty, affecting the lower and middle lobes of the right lung. He could not sleep and for several days either could not or would not tell me why. Then he described a dual mental existence. When he started to sleep he became implicated on two sides of an argument or some philosophical investigation, becoming so mixed up on both sides that he was exceedingly annoyed and distressed. This continued while he was awake all through the night, but as the morning dawned he could get a little sleep. For several nights this had continued before I was informed of the trouble, for the Professor (he was connected with one of our schools) thought the dream, as he called it, was too trifling to tell. Here was the "dual existence," which is so characteristic of baptisia and the success of the prescription proved again the glorious truth of our law. That night after receiving the similimum the patient slept the first night for a week. Improvement commenced in the pneumonia immediately and he needed little else to fully establish convalescence.

Case fourth was that of a young lady, a school teacher, who was subject to hay asthma in the fall, and to severe asthmatic attacks from cold at any time, following exposure. These attacks were very tenacious, confining her to bed often for a week or ten days. It was in one of these colds, with severe asthmatic oppression, that I saw her. As I was preparing the remedy I had formerly given her in similar attacks, she said "doctor, I could not sleep last night, but it was from such an absurd cause I will not tell it." Of course I insisted on knowing the reason, when she said, "I have been three persons all night and it kept me con-

stantly busy to keep all the three covered with the bedclothes. It so troubled me that I slept none all night and even continued while I was awake." Here was again the characteristic of baptisia tinctoria. I gave her three drops of the 1x dilution in a glass of water about 9 o'clock in the morning, and by 12 o'clock at noon the patient was up and dressed, almost entirely free from the asthmatic attack. I had attended this lady in former spells no worse than this which lasted a week.

PROVINGS OF ARCTIUM LAPPA.

BY THE CHESTER, DELAWARE AND MONTGOMERY COUNTIES' SOCIETY.*

I.—A strong tincture was made from the entire plant, leaves, stalks, burs and root of burdock, gathered in June. Doses were taken morning and evening.

July 2d, 1860. In the morning, on rising from bed, took ten drops of the tincture in a tablespoonful of water. Felt a slight uneasiness in the abdomen, accompanied by a rumbling and rolling about in the bowels during the greater part of the day. Sleep not disturbed; felt the same uneasiness in the abdomen after the evening dose.

July 3d. Took twenty drops in water morning and evening as before. During the day felt a slight tingling sensation in the dorsum of the left foot. Sleep not disturbed during the night.

July 4th. Took thirty drops morning and evening in water. Numbness and tingling in dorsum of the left foot continue. Troubled with dreams during the night, which is very uncommon. Awoke in the morning with a dull, gnawing pain in the left hand, extending from the wrist to the ends of the fingers; also a gnawing pain in the knee-joint, which eased up at times, then, in a short time, returned again. These pains seem to be relieved by motion, but come on again during rest.

July 5th. Took thirty drops as before. Ate breakfast with my usual good appetite. Pains in the hand and knee continue; also a sharp sticking pain in the right elbow-joint at times during

* Prepared for the Society by Drs. R. P. Mercer and I. Crowther. I by Dr. Mercer, and II under the direction of Dr. Crowther.

the day. Pain in right hand similar to that already described in the left. A sharp, shooting or lancinating pain in the head, over the left eye, and sometimes extending over the top of the head. Being away from home the dose was not repeated in the evening. Awoke in the morning, after a night of dreaming, with a white coated tongue.

July 6th. Took thirty drops in water. Pains continue; feel a similar pain at times in both the feet and hip-joints. Appetite, as usual, good. Stool natural. Pain in the abdomen still felt shortly after taking each dose; also a bearing down pain in the bowels before going to stool. The dose was not repeated in the evening; rest as last night.

July 7th. Took forty drops. Symptoms continue as stated yesterday. No new symptoms worthy of note.

July 8th. Discontinued the drug, because I was called away from home. But the symptoms continue as before, those in the head even being somewhat aggravated. At times throughout the day I felt a sharp, shooting, stunning pain as if struck with a hammer at the base of the occipital bone immediately behind the ear.

After a few days these pains gradually subsided; those in the hands and lower extremities were the last to disappear.

July 16th. Again took ten drops in water. Shortly afterwards I felt the same uneasiness in the abdomen directly under the umbilicus. Stool was natural, and at the usual time. Pains in the hands, knees and ankles, which had not entirely left, were slightly aggravated by noon. Repeated the dose at 9 P. M. Pains aggravated, but sleep undisturbed during the night.

July 17th. Took ten drops as before. Pains in the hands and knees, extending down to the feet and ends of the toes; quite annoying. A pain in the fore part of the head; sometimes it subsides and then comes on again with sharp, shooting stitches, and gradually settles down into its former dull, heavy ache. In the evening took fifteen drops. Sleep undisturbed.

July 18th. At 6 o'clock A. M. took twenty drops in water. Slight pain in abdomen half an hour after taking. Pains in the hands and feet continue; sharp shooting pain in the elbow-joints, extending down to the hands; darting pain in the shoulder; a

heavy laming pain in the right groin. Sharp shooting pain in the base of occipital bone, extending up into the head. Earache. Pains in the hypogastric region. At 9 o'clock P. M. took twenty-five drops and retired for the night. Pains worse for a time after going to bed, but subsided after an hour or two, and sleep not disturbed until morning. Awoke refreshed.

July 19th. At 6 o'clock A. M. took thirty drops, and at 11 o'clock A. M. thirty-five drops more. Nausea and pain in the abdomen after taking food. Sharp, sticking pain in the shoulder, extending along the clavicle and sterno-cleido-mastoid muscle. Sharp constrictive pain in and above the elbow-joint. Stool natural with a feeling as of approaching diarrhœa. At 9 o'clock P. M. took forty drops. Acute colicky pains in the abdomen and in the region of the liver. Sleep not disturbed.

July 20th. At 5 o'clock A. M. took fifty drops, and at 2 o'clock P. M., fifty drops, and at 9 o'clok P. M. fifty drops more. Symptoms continue as yesterday, with the addition of a twitching pain in the muscles of the chest at times. Appetite increased.

July 21st. No medicine. Symptoms continue as before.

July 22d. No medicine. Symptoms considerably relieved. Some, altogether subsided. The pain in the joints still quite perceptible, especially those in the hands and feet. The pains in hands and feet were the last to leave. They continued for several days.

This proving was commenced in July, 1860, during my college days, with the intention of making it the subject for my thesis the following winter, but the symptoms not turning out thick and fast enough for my then-anxious mind, it was after this short trial on myself, alone, abandoned for a more prolific subject. I have frequently used arctium lappa in my practice, since that time, for the rheumatic pains herein recorded, with good results, but have never attempted to prove it further, as I have always intended to do, nor made any empirical use of it.

II.—Being the record, together with an analysis of the effects of arctium lappa on six persons in good health and of temperate habits.

The tincture (class I), third and thirtieth centesimal preparations used, were procured from Boericke and Tafel. The doses

ranged from ten to two hundred drops of the tincture, one to three times daily, and two or three No. 40 pellets of the dilutions every three to twelve hours.

According to Hale there are two varieties of burdock, the one with larger leaves being used in medicine. The tincture is made from the root and seeds, equal parts of the expressed juice and alcohol.

Prover No. 1.—Mr. C. F. C.

Aged. 27. Warper, dark, tall, excitable, single. Drug used, the tincture.

May 21st, 1883. Took the first dose, ten drops at half-past six A. M. At eight o'clock had slight pain in right side, just below ribs; also in right temple. Languid and tired between four and five o'clock. Slight frontal headache after supper. Twenty drops going to bed.

Second Day. Thirty drops before breakfast. An hour afterward felt dull, frontal and temporal headache. Between one and two P. M. dull pain through the middle of chest, extending through to back, lasting about fifteen minutes. Forty drops at night.

Third day. Fifty drops in morning; sixty at night. Headache at half-past two P. M. Very tired at four o'clock. Pain all through left shoulder, in afternoon, worse raising arm.

Fourth day. Seventy and seventy-five drops. Very tired at eleven A. M. Slight pain in left shoulder.

May 25th, Fifth day. Eighty drops in A. M., eighty-five at night. Excessively tired all day. Frontal headache. At night could not sleep; very restless but had neither ache nor pain. Discontinued drug because he could not do his work. Pain in left shoulder lasted three or four days, as did a pain in right temple.

Remarks: The tired feeling was the most prominent symptom from first to last, and was of both mind and body. He wanted to sleep all the time. Thought his appetite, already good, was improved; was very hungry, could not eat enough.

No. 2.—Miss M. W.

School teacher, aged twenty-seven years; brunette, above medium size. Lively and sensitive. Took tincture, by drops and pellets of the third centesimal.

Sunday, April 29th, 1883. Began with fifteen drops of tincture in the morning. Two hours afterward had a dizzy feeling as if she would fall; not unpleasant, like as if going to sleep; worse lying down; better toward noon. Tired. Fifteen drops at night.

Second day. Same dizziness and sensation of falling. Tired all over. Twenty drops, twice.

Third day. Same dizziness, better in open air and from walking. Thirty-five drops night and morning.

Fourth to seventh day, inclusive. Took drug night and morning in increasing doses; feeling same vertigo and fatigue.

Sunday, May 6th, Eighth day. Took seventy-five or eighty drops in A. M. Came to reporter about noon with these symptoms: Dull, confused, heavy feeling in head. Fear that something might happen. *Trembling and great excitement.* Thought she would faint in church. Weak and tired. Too tired to do anything. Cold all over. Cold sweat at times. Had been frightened two days before. Too sick to record her symptoms. Stopped arctium and gave placebo. Was quite well in two or three days, except dizziness, which she thinks lasted about a week.

As her examinations were near took no more medicine for two weeks.

May 21st. Twenty-five drops at night.

22d. Thirty-five drops night and morning. Severe pain in head, extending from nape of neck to forehead, accompanied by a feeling as if she would faint, and a dull, heavy, aching pain in upper surface of eye-balls, as if eyes were tired by long reading. Eyes better when closed. Pain in forehead was less sharp, only heavy, when faint feeling was present. Steady aching, apparently in muscles of throat, lasting all day. Inclination to tie something tight around throat.

These symptoms lasted several days, but thinking she should only record new ones did not record them but kept on taking ℞.

Sunday, May 27th. Sixty drops, night and A. M.

Steady pain in right side below ribs, extending thence from stomach, at times quite sharp.

28th. Sixty-five drops, two doses. Loose, griping stools.

29th. Still loose, griping stools. Stopped drug and failed to

note symptoms, because she thought she had taken cold by sitting in a draught.

30th. Numb aching in shoulders, down arms to elbows and wrists; also in small of back, extending down posterior surface of hips and thighs.

31st. Seventy-five or eighty drops in morning. Same pain in limbs and back. General weariness and languor with desire to sleep. Pain in arms worse from exercise. Sleep poor at night, mind too active. Discontinued drug.

Remarks:—Fatigue and lassitude was bodily and mental, and lasted several days after quitting drug. Appetite and sleep had been poor all spring, but appetite seemed better during the proving. Felt somewhat tired before beginning drug. Noticed no effect on menses, at which times she took no medicine.

Third centesimal, two No. 40 pellets, three to six hours.

June 16th (about) to July 10th. No effects, unless tired, lazy feeling.

Note by Reporter.—Prover's mind seemed confused all time taking drug.

No. 3.—Miss I. S. C.

Aged 27. School teacher. Dark, quick, sensitive, vivacious. Good figure. Used tincture and third centesimal dilution.

Thursday, April 26th, 1883. Ten drops at night. Very wakeful during night.

April 27th. Dull heavy pain over right temple, in afternoon. Occasional sharp, choking cough in larynx; four to eight P. M. Nausea between ten and eleven A. M.; again at half-past three P. M. Dull pain in small of back, better from rest. Very excitable all day. Note. (Perhaps caused by sudden death of a pupil.)—Took ten drops night and morning.

Third day. Ten drops morning, twenty at night. Aching in calves of legs eight to ten P. M.

Fourth day. Thirty drops, morning, noon, night. Sore pain above left temple half-past eight to ten A. M. Sharp pain ten to twelve, and dull afterward until five P. M. Nausea, at noon, desire to vomit. Quite nervous, excitable.

Fifth day. Forty drops, three doses.

Sharp pain over right temple about four o'clock. Aching in left groin in afternoon. Same aching of calves. Appetite improved.

May 1st, Sixth day. Ten drops in A. M. (out of drug). Dull pain over right temple at nine A. M., lasting fifteen minutes. Choking cough in larynx from ten o'clock till two. Dull pain in lower at intervals from eleven to two o'clock. Aching in calves with numbness and burning. Aching in middle of back with flashes of heat.

May 2d to 20th. No drug. No symptoms recorded.

May 21st. Fifteen drops at night.

22d. Mind anxious, worried as if something were going to happen. Aching and numbness in calves in afternoon. Excitable all day. Twenty-five drops night and A. M.

23d. Thirty-five drops, three times.

Dizzy, as if would fall, afraid to try to walk. Choking cough in larynx eleven to twelve noonday. Same aching of calves and nervousness.

24th. Forty-five drops, three doses.

Dull headache, over right temple and in occiput. Headache on awaking, passed off after breakfast. Palpitation of heart, for about ten minutes. After dinner and again at 7 P. M., violent beating of heart.

Dull pain in region of liver, lower right chest anteriorly, all day, sore to touch.

25th. Three doses, fifty-five drops each.

Dull pain over left temple. Aching in legs just above knees, all day, painful on motion. Lameness. Fluttering and uneasiness about heart all morning.

26th. Sixty-five drops, three times.

Pain over left eye all A. M., over right temple in afternoon. Aching of calves. Fluttering of heart. For last three days urine high colored and offensive, better to-day.

27th. Sixty-five drops night and morning. Numbness of hand (right).

28th. Seventy-five drops, three times.

Dull headache on awaking, better after breakfast. Tired aching in legs. Sharp pain above pubes right after dinner. Sore pains

in right shoulder, and in left arm above elbow, also under left scapula, near axilla.

29th. Two doses, eighty-five drops each.

Legs and feet tired and numb. Palpitation of heart one to two P. M. Choking cough in throat (larynx) four to six P. M. Very nervous. Pain in right wrist, in evening.

30th. Decoration day. Very tired and nervous. Stayed at home in afternoon to rest.

Took ninety-five drops, night and A. M.

31st. One hundred and five drops, three times.

Dull pain over left temple. Nausea all morning. Pain in abdomen, causing dizziness in evening. Aching of calves. Very sharp pain under left scapula near axilla, lasting two or three minutes, about ten A. M.

June 1st. Ninety drops in A. M. (last of drug). Sore throat, right side, with cough ten to eleven A. M. and again about five P. M. Shooting in right wrist in morning and again from four to six P. M. Feeling as if needles sticking in right thumb.

2d. No drug.

Dull ache in head (forehead?) when awake; in afternoon on top. Pain in left shoulder in afternoon.

3d. No ℞. Palpitation of heart in morning. Pain under left scapula, near axilla, two P. M., lasting only few minutes.

4th. One hundred and fifteen drops at night.

Dull headache on awaking. Very restless during night; could not sleep after five o'clock. Nervous.

5th. No drug. Approaching time for menses. Aching in calves. Very tired and languid. Pain in left wrist.

6th. No drug. Severe aching in calves. Severe aching of metacarpal bone, right thumb, sore to touch.

7th. One hundred drops in A. M.

Head dizzy. Aching in right side of throat. Nausea all A. M. Very restless night. Awake most of the time; mind seemed overactive.

8th. One hundred and fifteen drops in morning.

Head dizzy. Nausea.

9th. No ℞. Headache on top all day. Sick stomach in evening. Legs tired. Very tired all day, but more walking than usual. Languid and stupid feeling.

Menses appeared in evening; more pain than usual in back and lower abdomen, especially from ten to one o'clock midday.

10th. No drug. Very tired all day.

11th to 14th. No drug. No effects recorded.

15th. Aching over left temple and on top of head in morning. Aching of calves. Very restless at night. Left hand numb when she awoke. Passed off soon. One hundred drops at night.

16th. Mind troubled as if something might happen. One hundred drops at night.

17th. Aching of legs above knees and in calves.

Eighty drops in evening (out of ℞).

18th. No ℞. Headache on awaking, better after breakfast.

19th. No ℞. Nausea forty-five minutes past nine.

20th. No ℞. No symptoms.

21st. No ℞. Severe headache at bedtime and on awaking next morning, lasting until five P. M., when better after a glass of sarsaparilla soda water and her supper. Appetite most excellent.

Remarks:—Prover thinks drug acted as tonic and helped her to keep at work better this spring than usual. Appetite good all the time. Enjoyed the proving. Pains were mostly dull and aching, those of the head and calves being the most prominent. There was present a constant sense of fatigue of both mind and body.

Prover No. 3. Continued.

Third centesimal potency, two pellets (No. 40) every three hours.

June 23d. After being without drug for a week on taking third felt very tired and languid; worse at night.

24th. Aching and tired feeling in calves.

25th. Dull aching over left temple.

26th. Heavy feeling on top and back of head. Aching in calves.

27th. No symptoms.

28th. Headache on top in morning. Tired and languid.

29th. Headache on awaking; better after breakfast.

30th. Same headache in A. M., with relief after breakfast.

July 1st. Two doses. Headache all day. Hungry.

2d–4th. Two doses. No effects. Discontinued ℞.

Note.—Menses appeared July 5th. More pain than ever before. Very severe in back; so bad applied to Dr. S. for relief.

No. 4. The Reporter.

Aged 26. Brown hair, blue eyes, five feet seven inches in height, unmarried. Tincture, third and thirtieth preparations.

May 21st. Tincture. Took first dose of twenty-five drops in A. M., the same at night.

An hour after taking drug felt a gone feeling in the stomach, accompanied by empty eructations; worse after dinner (also breakfast); better in open air three P. M.

Second day—May 22d. Thirty-five drops morning and night.

Tired and sleepy all day. Indisposed to do anything mental or physical (not a new symptom).

Third day. Two doses; fifty drops each.

Bitter taste, no appetite, tongue thick and flabby, but clean.

Fourth day. Sixty drops twice. Yesterday had heavy feeling across middle of chest; worse to-day. Have constant desire to press upon chest (weather cold yesterday). Sleepy and lazy.

Fifth day. Seventy-five drops in A. M.

Went to Philadelphia; walked a great deal, out driving in wet and cold until two A. M.

Sixth day. Could hardly get out of bed, ached so and was stiff, afraid to move, sore all over. No ℞.

Seventh day—May 27th. Still stiff and sore, but rather better. Sore aching all day along lower ribs, left side, painful to touch. One hundred drops at night.

Eighth day. One hundred and twenty-five drops, twice, in water. Great physical and mental lassitude. Very sleepy at noon. Backache, low down. Dull frontal headache. Dryness and stopped up feeling (had cold in head when began proving) in nostrils. Bitter taste.

Ninth day. Still same excessive fatigue or lassitude. Aching pain at times in middle of right chest, better in open air. Pain in small of back. Nostrils still dry. Appetite variable, wanting at one meal, ravenous at the next. Sleepy all day. Weather cool. Sensation during evening as if lungs were congested. Shortness of breath. One hundred and fifty drops at night.

Tenth day. Dull pain in right chest, two inches in area, above and inside of nipple, sort of sore ache. Drowsy and tired. Oppression of breathing, ten P. M. with sensation of heat though night was cool and damp. Sensation of hair in right eye with inclination to rub the eye. Thirsty. Hungry, but after eating a little seemed oppressed. One hundred and seventy-five drops, eleven P. M.

Eleventh day. Tired and sleepy. Too tired to think. Tired to death from a little walk. Same sensation of a hair in right eye and desire to rub it. Began about eight P. M. while in the dark and was better in a bright light. Two hundred drops at night.

June 1st.—Twelfth day. No R.

Very restless last night, unable to go asleep for long time, and then awoke several times. Pain in small of back, worse lying on back. Awoke at six A. M. feeling quite bright.

Thirteenth day. No. R. Sleep very restless last night. Rather better than preceding night. Aching in forehead last night and again this morning. Lightness of head and dullness During the evening pain down left hip in region of sciatic nerve (had this pain before). Went to Philadelphia, walked a great deal but returned quite fresh and bright.

June 3d.—Fourteenth day. Still feeling brighter and better mentally and physically.

Note.—Thought drowsiness and languor might be caused by the alcohol, being unused to its use in any form, and the symptoms growing severer with the larger doses.

No. 4. Continued.

Third centes. Dose, two pellets No. 40.

June 28th. Have taken no arctium for three weeks but have experienced more or less dullness and drowsiness. Very thirsty in evening, not relieved by soda water. Three doses.

29th. Less sleepy than usual. Great sneezing at nine A. M. had hair cut the day before Four doses.

30th. Four doses. Although up until one o'clock last night awoke earlier than common, feeling refreshed.

July 1st. Yesterday had much exertion and unusual exercise, and did not get to bed until half-past three A. M., but do not feel

tired this morning. Took a nap in afternoon, had seminal emission; dreamed was being murdered and awoke in terrible fright. Aching under left shoulder (scapula) after supper, lasting all evening, worse sitting. Four doses.

2d. Four doses. Slight aching under left scapula at intervals during the day, worse in the morning.

3d. Three doses. No symptoms.

4th. Lost much sleep last three nights, but do not seem to feel it. No. R.

Thirtieth Potency.

5th. Three pellets every three hours.

6th. Four doses. Last night had dreams of great exertion. To-day sleepy. Poor appetite (day excessively hot).

7th and 8th. Four doses. No effects.

9th. Severe backache on awaking, did not want to move, but better when I got up.

Remarks:—Have noticed that during the proving I have been very forgetful. Forget what I am going to say or do even when I have begun it. Have to stop to think (have experienced this before).

No. 5. Mr. J. L. P.

Aged about twenty-four. Brown hair, sandy beard, medium size, well built. Disposition quick, hopeful. School teacher. Unmarried. Drug used, thirtieth dilution, two No. 40 pellets.

June 8th, 1883. One dose in A. M.

Thought his mind was unusually bright and active. Everything seemed vivid.

9th. Four doses. Dull, lazy, drowsy in afternoon. Trifling headache on top.

10th. Extremely languid and weak in the knees. Dull frontal headache. Very sleepy, particularly toward evening and in doors.

11th. Fourth day. One dose in A. M.

Terrible headache, beating and throbbing, "stretchy," sleepy feeling, slight pain in small of back. Thought he noticed slight tenderness in chest.

Discontinued drug because he was "so sleepy and tired; had to give up drug or business."

Remarks:—Tired feeling continued three or four weeks. Not tired before, nor since. No unusual exercise. Thinks drug rendered him more sensitive to take cold on his chest.

No. 6.—Mr. H. R. M.

Aged 22 years. Train despatcher. Tall and straight, sandy hair, face freckled, quiet and firm. Preparation, thirtieth centes. Dose, two pellets No. 40 every three hours.

June 23d, 1883. Drowsy all day, worse toward evening, completely exhausted at night.

24th to 26th. No effects noticed.

27th.—Fifth day. Slight, dull headache about one P. M. continuing until he got asleep at night.

Note.—Dinner an hour or so later than usual.

June 28th to July 6th, inclusive. No effects.

July 7th. Three pellets every three hours. Drowsy and sleepy. Extremely weak and tired.

8th. Tired feeling better, still sleepy.

9th. Discontinued drug. Drowsiness lasted several days, but wore off gradually.

ARCTIUM LAPPA (Burdock)—*Analysis* of six provings. Numbers refer to prover. Nos. two and three are females.

Mind. Anxiety, undefined dread of impending evil. Confusion (three provers). Impaired loss of memory (four). Worse from emotions (two and three).

Head. Vertigo as if she would fall; better in open air; dizziness (two and three). Dull heavy pains in forehead, vertex, temples and occiput (all the provers). Occasional sharp pain. Morning headache better after breakfast (three).

Eyes. Top of balls sore as from reading (two). Sensation of hair in eye with desire to rub (four).

Tongue. Flabby and clean, taste bitter and thirst (four).

Throat. Soreness in muscles and larynx (two and three). Wanted to tie something tight round throat (two).

Stomach and Abdomen. Appetite increased (four provers). Variable (four). Eructations and fullness, worse after eating (four). Sharp pains shooting into side and through to back (one and two).

Complaints generally worse after eating, except morning headache, which is better. *Nausea* (two and three). Sharp pain about umbilicus and in lower abdomen (two), near time menses (three). Colicky pains (two).

Urine. High colored and offensive, three days (three).

Sexual Organs. Perhaps pains increased in back and abdomen before and during menstruation.

Respiratory Organs. Choking cough in larynx (three). Pain, dull, sore and aching in middle of chest and right side (three provers). Oppression of breathing as if lungs congested (four).

Heart. Fluttering and violent beating (three).

Back. Sore aching pains in neck, middle and lower part of back (four provers). Pain in small of back extended down into legs (two, three and four).

Extremities. Aching sore pains through shoulders, down arms, legs, knees, calves, wrists and thumb (under use of tincture). Worse from motion. Lameness, numbness of hands (three). Long lasting pains. Left shoulder and under left scapula (one, three and four).

Nerves. Trembling (two). Cold sweat (two). Restless, hysterical, clutching at throat with cough, inclination to faint, nausea, fluttering about heart, anxiety (girls). Tired and sleepy (all provers). Increased sensibility and diminished motor power (lassitude, etc.).

Sleep. Primarily produces excessive languor and drowsiness. Sleepy in day time, can not keep awake (all the provers). In large doses produces sleeplessness, mind over active (four provers on tincture).

Fever. Flashes of heat (three). Hot in cool evening (four). Cold sweat.

Generalities. Most constant and prominent symptoms are headache, muscular pains, sleepiness and fatigue. Pains mostly dull, heavy and aching; worse after eating, save morning headache; from motion. Aggravation from four, six and eight P. M.

Better in open air.

Resembles, lycop., lach., bryon.

PROVING OF PISCIDIA ERYTHRINA.

BY J. C. MORGAN, M.D., PHILADELPHIA.

Philadelphia, October 29th. 12.05 o'clock (midnight).

Took of Parke, Davis & Co.'s fluid extract, two drops on the tongue, and went to bed. Opening a closet with left hand, chilly feeling in l. shoulder. Slept well all night except (as usual), rose once to urinate. Woke without unusual symptoms.

8.15. Took two drops. No symptoms. About noon two drops. Soon after (riding in street car) felt a dryness in the posterior aspect of soft palate and accumulation of mucus. Later (walking), forward pressure in left side of upper cervical vertebræ. At 2 P. M. took a small lunch, with brown stout (an unusual beverage). In a few minutes (standing after taking a step), sprained sensation in inner part of left knee. Dined at 5 P. M., and while sitting bent felt the stomach oppressed; later, sensation of the food being lodged in the gullet behind sternum; then regurgitations; better after a light supper, with coffee (at 8 P. M.); belching of some wind.

October 30th. At 12.40, midnight, took three drops. After twenty minutes or less, flatus, per anum, several times, slightly fœtid, followed by sense of relief. Later (as some time after every dose), the *taste* seemed slightly acrid in the mouth.

At 2 A. M. slight pyrosis (had taken some sugar and a few grapes at midnight). At this time took three drops and went to bed. In the morning felt as well as usual, and at 10.20 A. M. noticed a slightly greater amount of energy and elasticity. Breakfast much enjoyed; sets well. At 10.30 took three drops. At stool, a few minutes later, sitting in a *very slight* draught (r. s.), felt a strong tingling in middle of right nasal passage.

At 12.50 three drops. While writing this in slight (r. s.) draught; chilliness in right side of head and face quite marked. Felt well all the P. M., except at 9 o'clock (the weather being damp and warm), on commencing to walk, and until seated in street car, an aching in the right shin (quite marked and unusual). In the car eructations, tasting of supper. Both little toes had been painful (left one is the seat of a corn—both now trimmed); this had lasted several days, and was aggravated by walking;

to-night both feel much better. In general, feel better than usual. Seminal ejaculation more precipitate than usual; then a short sleep; then felt dull; afterwards good, and even a slightly gay humor.

At 10.45 transient aching in right lower incisors.

At 11.40 P. M. took four drops. While undressing (a few minutes later), dull, slight pain in left parietal region, extending to supraorbital foramen. At 12.12 (October 31st), mucus on back of soft palate with sensation of harshness, dryness or pricking on swallowing.

In (early) morning rose several times to urinate, with prostatic tenesmus. Took, at 8.15 A. M., a hot bath; toes more sore afterwards.

October 31st. At 8.47 A. M. took three drops. Afterwards breakfasted, and soon after went to stool. Had some rectal and prostatic tenesmus. Protrusion of a (r. s.) habitual hæmorrhoid, unusually followed by persistent sore and full feeling (after replacement). Toes feel better again. At noon three drops. Soon after, walking, my gait seemed heavy and inelastic. At 2.30 P. M. ate "ginger snaps." At 5, not having dined, threatening of pyrosis while standing over table, followed by eructation.

November 1st. 1.13 A. M., took six drops. After undressing, feet getting cooled, sneezing, fr. titillation in l. nostril.

At 8.45 A. M. fifteen drops. Immediately after washed head, face, etc., in cold water, then felt a sense of general fullness of the head. In A. M. sticking pains in front of left shoulder-joint, radiating outward and downward from inner tuberosity of humerus and coracoid process. (The air is damp and cool; weather cloudy.) Soon after (having written the above), similar sticking in right inner tuberosity.

At 11.10 A. M. fifteen drops. At 11.30, and after some exertion with the arms, bending over, etc., uncomfortable feeling in the stomach; almost qualmish; better by eructation having little flavor. Dull feeling in head—sides, top and front; later, slightly of an aching kind, especially in right side of head. At 12.45, midnight (November 2d), took fifteen drops, followed by a slight return of fullness in the head.

November 2d, 8.30 A. M. At breakfast, found myself unusually

fastidious, and easily disgusted with the flavor and consistency of articles of food. This has been the case (I now recollect), in less degree, for several days. At 2.50 P. M. (walking after leaving street car) had a catching pain along the left posterior intertrochanteric line, through to insertion of adductor brevis, and down the inner hamstring; better by pressure at the first named spot, and by standing still. At 3.15, sitting in a warm room, similar pain, less severe, in *right* hip, extending downwards, as a smart aching, to the shin, and behind inner malleolus. The usual flatulent accumulation in left colon seems much diminished.

At 2 A. M. (November 3d), took 15 drops (being fatigued by writing, etc.). Before going to bed (on urinating) noticed that the penis seemed remarkably small. Fine sticking in the right side, in the chest—(about 9th intercostal space). Bending over table, to write, pressure and slight aching in right side of the head. This continued (increased when bending my head far down) until I went to bed. No special effects until 1.30 P. M.; riding in street car, and reading, return of headache, particularly in superciliary region, continuing after leaving the car—dull, aching. For several days, little sexual feeling; at 10.40 (walking) had increase of the pain. (At 10.30 P. M., handled some *phosphorus*^{200}, and may have got a minute quantity in my mouth.) At 11 o'clock, sense of repletion, with an almost painful gastric pressure, better by repeated eructations; came on after walking in the open air. At 11.25 (while writing this), it is felt behind mid-sternum with transient aching in outer left superciliary region. Eructations taste only of the food of supper.

November 4th. No symptoms, until, at noon, after ordinary defecation, constant uneasiness at neck of bladder (prostatic perinæum), and frequent desire to pass (a little) urine; more whilst walking out in the afternoon; less in the evening. Sitting up very late, writing, repeated free urination (as usual). Also, rose several times, up to morning—more than usual; urine very pale, abundant. At night dreamed of seeing a person sitting with ripped trousers and protruding penis. During the day more sexual instinct.

November 5th, 5.20 P. M.; sitting, neuralgic pain in right second and third toes.

November 6th. Examined morning urine; less abundant and watery; sp. gr. 1013. Sexual instinct, *nil.* Stools and micturition to-day, normal. Former flatulence has returned. No symptoms noticed. At 11 P. M. (writing), supra-orbital ache; l. s.; worse in outer half.

November 7th. At 2 A. M. was called out for consultation in a case of parturient hæmorrhage. Performed the operation of *transfusion of blood.* Returned home at 4.30 A. M. feeling much below par. On going to bed, palpitation of the heart (not very unusual). Seminal retentiveness insufficient; with fullness of the head, and pain shortly afterwards.

At 11.35 A. M., took twenty-two drops. At 12, face-ache, in left superior maxillary, above canine alveolus (this is the site of an old dental abscess, and the pain was repeatedly felt during the previous taking of the drug, but it escaped my memory when writing symptoms. In the present case, it comes while writing, in a warm room—previously, in cool, damp air)—outside weather now, damp. A few minutes later, similar aching in right leg, just above ankle, in tendons of long extensor of toes. Similar ache, in less degree, in the right superior maxillary. At 1.30 (standing in the street), heaviness in the nasal bones; also at 5 P. M. at home. Later at night, dull ache in l. s. of head, while reading—afterwards, in the vertex—(while writing).

November 8th, 3 P. M., walking in the street, catching pain in left lower border of sacrum and in adductors of thigh—apparently muscular; extended afterward down to middle thigh, especially behind, disabling from active movement. At 8.20 P. M. (bending over to open a refractory lock) severe catching and disabling pain in the whole origin of left deltoid; relieved by resting hand on the wall above the head. Later, sitting, pain below and about outer left malleolus. At 3 A. M., November 9th (writing), pain in slight aching, sore twinges inner and lower part of right tarsus.

During the day, at various times, have had return of pains previously mentioned; as disabling pain in *origins* of left vastus externus, and of left gluteus maximus, *i. e.*, outer posterior aspect of femur and left border of lower sacrum; right shin (aching), little toes, especially left (stinging).

November 10th, 10.30 A. M., stool neglected; interested in something else; occipital fullness; sensation of a large hot drop coming from the urethra; found it had the appearance and odor of semen. Generally buoyant.

November 10th, 5.10 P. M., sitting; pressure as of a knuckle *above* the center of right superciliary ridge (in the transverse frontal depression).

November 10th, 11 P. M., phlegm in air-passages (usual) is detached with unusual ease.

At 1.20 A. M. (November 11), standing; dull aching in middle third of left shin.

November 11th, 1.30 P. M., took thirty drops in three ounces of water. In five minutes a drawn feeling in the elevator muscles of the upper lip and wings of nose and compressor nasi. Later, suspender felt painfully oppressive on right shoulder-joint. At 4 P. M. walking in open cold air sudden sense of stoppage in left ear. 4 P. M., walking; noticed that the radial side of root of (l.) little finger-nail is sore, reminding me of the painful toe; l. toe was this morning trimmed of hardened cuticle about (outer) root of nail; not painful until a few minutes after midnight, then painful soreness while walking, and sense of pressure in the frontal depression above middle r. superciliary ridge.

November 12th, 8.25 A. M., took forty-six drops in water; fasting. Ten minutes after (and after washing) oppression at epigastrium, with frequent eructations, partially relieving (after resting stomach on something); then hiccough, passing off directly.

At 12.50 P. M., after stool and urination prostatic uneasiness, like desiring to urinate; later, extending forward in urethra.

At 1 P. M., on entering street car, pinching colicky feeling above umbilicus; later, sitting, felt also below it. (Ate no dinner until 7:45 o'clock P. M., then a full meal.) At 8:30 (riding) had a return of it.

November 13th. At 2.55 P. M. (walking in house), sudden transient feeling as of warm water poured on the three middle toes of right foot. At 8.30 P. M., sitting in church, contractive pressure over right superciliary ridge, a little nearer the median line than the previous record. During the next hour (after early full meal) slight colicky feeling; at 9.50 P. M. (having eaten sugar), food

sets oppressively and threatens to rise; slight eructations. At 10 o'clock, writing; arm cool; rheumatic pain through humerus above condyles.

About midnight considerable expulsion of flatus, per anum (sitting, writing).

To-day a feeling of self-reliance and independence; notably, toward the influence of the opposite sex, with composure and good humor.

At 12.25 A. M. (November 14th), took sixty drops in four ounces of cold water; soon after, belching. In the morning breakfast tasted unusually good. In the evening, after supper, colicky pain around umbilicus (in colon); worse when walking; better when standing still, with languor and malaise, *i. e.*, feeling as if I might get sick; emission of flatus only slightly relieves. At 1.43 (November 15th), night, sitting reading; eructation hot and irritating—slightly greasy.

To-day wrote a great deal and there came on a tired pain in upper part of right shoulder-joint—(I wrote it first "left.")

November 15th. The shoulder is annoyed by the overcoat. Colic when walking, as before. Again, late in the evening, when lying on left side (felt in *descending colon*). At and after a late supper felt in transverse colon. Felt very tired at 7.30 P. M.; had to lie down and sleep nearly an hour.

At midnight, writing; colic (transverse colon); aching sensation. Then a slight twinge deep in left ear. (Similar slight ear pains all through the proving, especially when weather is damp and cold.) For two days some aching, neuralgic, sticking pains in back of right wrist, outer left elbow (this afternoon).

After midnight, on rising from seat, emission of flatus and relief of colic. Writing, neuralgic pain at base of second metacarpal bone.

Attempted stool after breakfast (second time after midnight), only the most trivial fragment evacuated, each time stool seems to be in colon, but does not descend.

At different times during the day neuralgic or rheumatic and colicky pains—the former in region of outer and lower right biceps humeri—in right knee, etc. Afternoon, walking, sore pain in first joint of left great toe; pressure of shoe painful also; reminded me of gout.

November 17th. Traveling; constipation relieved; the same pains here and there; catching pains in r. adductors fem.; sitting, pain in *right* great toe-joint at insertion of extensor and above. Evening, in close car, right-sided dull headache; better in open air and by baring the head.

November 18th. Copious and dreamless nocturnal emission, waking me. Day, right shoulder occasionally noticed as sensitive, especially deltoid attachment to spine of scapula and acromion. During the day occasional catching pains in muscles, and joint pains (r. ankle) on suddenly taking false positions. Peroneal neuralgic, rheumatic pains; r. leg and foot in the daytime. Evening, deficient control of and haste in seminal emission.

November 19th. Occasional slight reminders of the former pains.

November 20th, 1.45 A. M., took one hundred drops in 8 fl. oz. water; the cold fluid felt disagreeable in stomach; bending over, writing, standing. 2 A. M., sitting; emission of a quantity of fœtid flatus. Decided increase of habitual tinnitus (hissing) in left ear (This has repeatedly happened after previous doses, but not previously acknowledged as drug effect—attributed to the cold, damp weather; not now so exposed.); fullness in ears, particularly in the left. Morning, on waking, pressing in perinæum, then micturition, relieving. Took, at 8.45 one hundred drops in cold water. Disagreed with the stomach. In fifteen minutes felt, whilst putting on a shirt collar, as if I should vomit, but no nausea; better by holding the collar away from my neck; stomach and abdominal muscles seemed to suddenly and repeatedly contract. At 9.05 watering of mouth and shuddering, then sudden vomiting, bringing up part of the fluid. Immediately after, felt well, and in a jocular mood went to breakfast and ate heartily. Tinnitus increased again (alike before and after breakfast). No special symptoms during day.

At 5.30 P. M., walking in open air; neuralgic pain in *left shin* (only) when stepping forward with *right foot*. At 10.20 P. M., walking in open air, catching pain at the insertion of right gluteus maximus.

[During the whole proving a habitual symptom, aching in and radiating from the upper portion of right epididymis has been aggravated; this spot being the seat of tenderness and some induration

since 1865, when it began immediately after a (commencing, but) voluntarily *suppressed* nocturnal emission. The induration is also obviously increased.]

At 4.45 P. M. sitting with thighs much flexed, neuralgic rheumatic pain in præ-trochanteric region, r. s.

At night (towards morning, November 22d), and for a number of nights, had to rise several times to urinate; with pressure at neck of bladder; same in the morning with erection. At 5.45 P. M., riding, aching (transient, but sudden) in right lower jaw, about the 2d molar. After midnight, walking in open, cold air, sudden, transient pain, deep in left ear. (This, too, is not an entirely new symptom, but has frequently recurred during the proving.)

Another habitual symptom has been occasionally increased, viz., accumulation of mucus on the surface of the air-passages, with comparatively futile efforts to detach it; in posterior nares, pharynx, larynx, trachea, bronchi.

November 23d, at 8.20, P. M. while moving about, neuralgic rheumatic pain in upper r. thigh, in the course of the trunk of the sciatic nerve. While undressing (1.20 A. M., November 24th), similar pain in outer and upper articular extremity of right tibia. Later, passed fœtid flatus.

November 24th, noticed no symptoms.

November 25th, at 12.50 P. M., standing, after hurried walking, had the same pain as before, surrounding the umbilicus (in colon). At 5.35 P. M. passed (after urinating,) fœtid flatus, with sense of relief. While reaching downwards and inwards with right hand, cramp in right lateral lumbar region. At 8.20 P. M. while working, flexing and adducting the left hand, crampy feeling at unciform process; cramp in muscles of ulnar edge of hand, leaving them feeling sore.

November 26th. Last evening and to-day, had occasional return of neuralgic rheumatic (?) pains in muscles, which at any time were in a state of special *tension;* and this evening, in the right shin, when walking; and (similar) pain and aching in the right testis, and in the right shoulder; the last two symptoms while sitting in room in shirt-sleeves, writing. At midnight, *i. e.*, 12.55 (November 27th), noticed a recurrence of a symptom repeatedly

felt before in this experiment, but not before esteemed important, viz., when swallowing saliva, a spasmodic partially inspiratory movement (not exactly hiccup, but) as if the breathing would stop at half-expansion. Its rhythm reminds me of the vomiting previously recorded.

November 28th. Early evening. Neuralgia in right shin, when walking in the open air. Went to bed, late; near morning (29th), woke with strong beating of heart in left side; relieved by assuming the knee-shoulder position.

At 9 A. M. (November 29th), rheumatic pain when opening the mouth wide, in and behind both inferior maxillary angles apparently in platysma muscle. At 11.30 A. M., same pain in the front of throat (on opening jaw). Later, first pain felt on coughing. Recurrence of these during the day and evening. At 10.20, sitting, writing, neuralgia in r. sciatic region, behind trochanter. Later, dull pain in right shoulder (still writing)—again in right hip, prickling-sticking, neuralgic pain.

November 30th. At 8.10 P. M., riding; had a return of colicky pain; again, later, while walking in open air.

During the proving have had to fatigue myself much with writing at night; and have frequently had severe exacerbations of an old strain of the ligaments and muscles of several of the interscapular dorsal vertebræ; like a tired, sore ache; thus it is to-night.

December 1st, P. M. After sitting, writing, rose and walked; severe catching and disabling pain in right upper peroneal region (of leg). Later, walking in open air, catching pain in sartorial border of Scarpa's triangle—r. s.; later, in middle of origin of right vastus externus.

December 2d, 9 A. M. Sciatica-like pains about the back and front of right trochanter, when moving about room.

6 30 P. M., sitting; drawing-aching, like rheumatism, in r. anterior thigh, external aspect of r. knee, r. sciatic region, inside of r. knee, in rapid *succession*.

At 9 P. M., walking in open air, desire to urinate; after entering warm room, felt it no more. On walking out again, at 11.30, it became urgent; while urinating, and before, pressure at neck of bladder (felt in perinæum); passed flatus with loud noise, which, with urination, relieved the pressure.

Have been troubled again, for a day or two, with the pain in unciform region of l. hand. The outer part of foot below the right ankle and instep (the partial site of a former sprain), has frequently felt sore and painful for short times, during the proving; is so this evening; better by setting foot fairly on the ground. At 12.30 o'clock, resting head on palm of right hand, felt as if a fly were on the dorsum of the same. Quite decided aching in outer right tarsus, while sitting, after walking out. Later, standing, it is more felt; also neuralgic twinge in lower third of r. leg. Toward morning had to rise from bed frequently to relieve the great perinæal and sphincter pressure by urinating, and sometimes also by passing wind. Urine abundant.

December 3d. All day much of the lame pain in l. unciform region, *i. e.*, in insertion of flexor carpi ulnaris; and in ulnar side of the hand, *i. e.*, in flexors of little finger. At midnight extended to the back of the whole elbow joint, but milder. Went to bed at 1 A. M. (December 4th) and was obliged to rise several times to urinate. Had a nocturnal emission with dream, and painful sensitiveness of the glans; followed by discomfort in prostate; then had to rise again and urinate, which relieved. [In the afternoon was driving in the country and felt *slightly cool.*]

December 4th, 7.30, walking in open air (rain commencing), catching dull pain in region of inner condyle of right femur, soon passing off. At 8.40, sitting in a warm church, suddenly, but somewhat persistently, a pain in lower part of left cruræus muscle, as if a sharp marble or bullet were lodged there. Later, rheumatic pains in thighs, here and there. Later, on rising from seat, sneezing (partly suppressed), followed by dripping from left nostril. Later, standing, at home, trickling in right nostril. The nostrils have contained fluid all day. Left nostril continued moist, with inclination to snuffle. [Considering the continuance of the pains in lower extremities which came on while taking the drug, I do not doubt the *co-agency of the drug*, along with the moderately cold and damp weather, in causing all the present symptoms. I have also been tired and sleepy, yet writing much at night, for some days.] Slight pains in parieties of right lower chest, on sitting down; transient pain in front of right ankle, inner side; then inner condyle of r. femur, and in shin. (Raining.) At 11.30 P. M.,

sitting in cool room, sneezing; then, hissing in l. ear; l. nostril moist; have coughed several times. Rheumatic pain in r. great toe joint, and whole toe; then in r. knee, in front of inner condyle; then, in front of r. outer malleolus; then in tendon of r. extensor carpi radialis, above insertion. (Raining.)

December 5th—Clear weather. No symptoms until 5 P. M.; noticed some of the usual pain in outer r. upper arm while carrying my medicine case (against chest). Pains always seem to be in parts under strain, tension, or false position. At 6.10, writing; dull, right-sided headache; sneezing; in left nostril, moisture, slightly fluent. Later, 6.25, sneezing again. At 8.38, cutting neuralgia in r. posterior interosseous space of forearm, above wrist. (After writing this,) sneezing (room warm); slight chilly sensation about head and face, especially right side; then pain in middle of outer r. calf. At 10.48 (writing, leaning back, and to left), severe colic in *left* colon, followed by emission of flatus, and relief. [Stools have been regular and normal.] Colic again after five minutes; and again expulsion of flatus, with relief. Just after midnight (room warm) sudden dryness in mouth and throat, causing cough. Later, sneezing—(room warm).

December 7th. Evening. Have had recurrences of pains in limbs and colon occasionally (weather cool and wet). To-day, at mid-day, walking; pains in sciatic regions and thighs; worse r. s. At supper pains in left chest over cardiac region, sticking; repeated, later in the evening; also, sticking in left side, about region of ninth rib. Left ear, much stoppage, and loud hissing (compared with the *habitual* trouble). At midnight, sticking above left mamma.

December 8th, 5 A. M. Pain, smart aching, deep in both ears. Afternoon, walking in open air parietal (?) contractive sticking, above left mamma. At 5 P. M. (having had stool in forenoon), felt much pressure at rectum and anus, and on going to stool, passed only a few particles; and afterwards, painful pressure and tenesmus. More or less rheumatic reminders. Ears obstructed, full, with sticking and deep painful pressure; especially the left.

December 10th, 8.30 A. M., fasting, bending far over, to pick up something from the floor, with clothes-bands pressing on stomach; sudden sense of painful pressure in upper abdomen, and of nausea and commotion; watering of the mouth, and threatening to

vomit; better after sitting down, but left an uneasy feeling; better after eructation of a *little* flatus; not easily raised.

December 11th. After having the soles of my feet (also my feet and ankles,) cold, a good deal, for several days, the (supposed) effect is this morning apparent in a cold, affecting my windpipe and bronchi with irritation and cough, and slightly hoarse voice. I do not doubt that the drug modifies the symptoms, and that they are thus in proper pathogenetic relation to it; but I now *stop the proving*, and take *phosphorus*[200], for relief. (In the evening, better.)

Next day and evening, as cold improved, much neuralgic rheumatic aching in upper peronæal and middle regions of *left* leg, showing the agency of the drug proved, not fully abolished.

SCHEMA OF PROVINGS OF PICRATE OF ZINC

WITH FRAGMENTARY CLINICAL EXPERIENCE.

BY HUGH PITCAIRN, M.D., HARRISBURG.

MIND AND SENSORIUM.

Symptoms of brain fag. Forgetfulness. Loss of memory. *Cannot recall common names* or things which at other times would require no effort to remember. Threatened cerebral paralysis, especially in children (E. M. Hale). Vertigo.

HEAD.

Bruised feeling in head. *Dull, heavy, drawing, occipital headache. Periodic.* (Almost specific.—E. M. Hale.) Fullness of head in morning when waking. Headaches which occur in Bright's disease (E. M. Hale). Dull aching in left temporal region drawing toward occiput.

EYES.

Dryness of eyes with smarting and sleepy feeling.

NOSE.

Dryness of nostrils. Plugs form. Itching.

EARS.

Buzzing and roaring in the ears.

MOUTH.

Dryness. Thirst for large quantities of water. Sticky, flat, dry, metallic taste. Teeth and gums feel sore.

THROAT.

Dry and parched.

STOOL.

Light colored; otherwise normal.

URINARY ORGANS.

Frequent copious micturition. Yellow, highly colored, strong-smelling urine.

SEXUAL SPHERE.

Nocturnal erections. Terrible erections relieved after micturition. Seminal emissions. Irresistible sexual desire. Spermatorrhœa.

RESPIRATION.

Desire to take long inspiration. Sighing.

HEART.

Pulse slow (below 60) but full and regular.

LIMBS.

Languid, heavy paralytic feeling in lower extremities.

BACK.

Dull pain in small of back as if struck with a club and bruised. All-gone feeling. Sensitive to pressure. Excessive nervous irritation along spinal cord.

SLEEP.

Disturbed, restless sleep, fullness of head in sleep. *Frightful* dreams which cannot be recalled when awake. Sleepy all day Semi-coma.

AGGRAVATION.

By motion. In afternoon toward evening; especially sleepiness. Can hardly keep eyes open. Feeling of general lassitude.

THERAPEUTIC RANGE.

Useful I think in paralytic affections. Brain fag. Nervous exhaustion from overworked brain and sexual excesses.

Chronic occipital headaches, periodic (almost specific); also headaches which occur in Bright's disease.

Threatened cerebral paralysis, especially in children. Acting better than zinc alone (E. M. Hale).

In cases of profound neurasthenia when the nervous exhaustion has passed beyond the stage of erethism.

Seminal emissions.

Nymphomania. Erotomania.

Tests were made with first, second, third, sixth and twelfth decimal attenuations. There appeared to be no verification of symptoms above the third; the best results were received from the second trituration.

Clinical Cases.—

Clinical case of R. W. McClelland, Pittsburgh.

Mr. S——, aged 22. Medium height and weight, to all appearances in good physical condition. Had known this person for a number of years, but never suspected him of being a victim of disease, much less spermatorrhœa. His complaints were referred mainly to digestive system, and were as follows: Weakness and distress in the region of the stomach; no appetite; general weakness and languor after breakfast; at all times a dragged and tired sensation in lower part of back; after breakfast a very bad taste in the mouth. Constant belching of large quantities of wind. Dizziness at times with aching in the joints, especially the knees; all the symptoms worse in the morning, increase toward noon, decrease in the afternoon, and many disappear, with the exception of the lumbar weakness. Dizziness and articular pains. Cross and low-spirited. Nocturnal emissions at intervals of two or three weeks,

which were very profuse and exhausting, leaving him weak and debilitated for days after. His trouble dated from age of puberty, when the derangement of the sexual system manifested itself in profuse nocturnal emissions, recurring sometimes several successive nights. These emissions quickly reduced the whole system and refused to yield to several old-school remedies. At last, resort was had to bromide of potash and the action of this drug was immediate. The emissions ceased and it was not long before he regained comparative health, but he was far from cured, the bromide only holding the emissions in check, and he soon found that when its use was discontinued they returned as before. He was therefore compelled to take the bromide as a steady diet in constantly increasing quantities extending over a period of six years. Has taken good care of himself; is correct in his habits. Mind dull with inability for mental exertion—difficult to keep mind fixed on one subject. Dizziness. Sensation of fullness in head, as though brain had swollen and was pressing against the skull; at times aching confined to the frontal region. A peculiar smarting of the eyes, followed by lachrymation, with relief. Sharp pain in the ears; also a sticky, odorless discharge. This discharge, in coming in contact with outer air, quickly dries, becomes incrusted about the external meatus, forming plugs, which, being removed, the process is repeated. Circumscribed redness of the cheeks, skin clear, except after a night of profuse emissions, when an eruption appears. The same was true when the bromide was discontinued. At such times heart's action irregular, with some palpitation. The digestive system much disordered. Tongue thickly coated white. Very disagreeable taste in the mouth; generally bitter. Throat dry, causing constant desire to swallow; little or no appetite; food causes uneasiness and distress. Sour eructations; frequent loud belching. Weak, faint feeling in region of stomach. Bowels constipated; rumbling of wind in bowels, relieved by out-door exercise. Frequent urging to urinate; urine voided six or eight times a day, clear and watery, rarely turbid. Scrotum relaxed, at times sweaty. Emissions occur mainly without erections or exciting dreams, are very profuse, and may occur two or three times a night. Next day complete exhaustion, and has to take an increased quantity of bromide to avoid the previous

night's experience. The equilibrium of his nervous system easily overthrown; is soon provoked, becoming sullen and angry.

Any excitement causes prostration, from which he does not recover for days, and causing nocturnal emissions. Trembling and twitching of muscles. *Dull aching pain in small of the back and lumbar region.*

When I undertook the case I advised him to leave off bromide of potash and prescribed china.[3x] He grew worse and returned to the bromide. Phos. acid met with no better success. Other remedies were tried in vain. I then prescribed zinc picrate and gelsem., directing him to take half the quantity of potash, then quarter, etc., gradually reducing the amount. He commenced to improve and continued improving until he came for no more medicine. While I do not consider this a clear test of zinc picrate, you are welcome to it if of any use to you.

Clinical case of Hugh Pitcairn, M.D., Harrisburg, Pa.

Mr. M——, aged 36. Merchant. Above the ordinary in intelligence. Single. Correct in his habits but subject to nocturnal seminal emissions since early manhood. They occur usually about three o'clock, A. M., on an average every third night, leaving patient exceedingly weak and debilitated; aggravation at every change in the electric conditions of the atmosphere, especially in hot weather during thunder storms and their approach. Never subject to self-abuse. Complains of loss of memory and energy, dull heavy feeling in the head. Sticky, pasty mouth. Dryness of throat; poor appetite. Belching regular torrents of tasteless flatus after eating, followed with relief and with diarrhœa. At other times inclined to constipation. Languid, heavy feeling throughout body. Dull aching pain in back. Before coming to me received some relief and benefit from the use of Fellows' hypophosphites, prescribed by an old-school physician, but the emissions continued as before.

I gave him nux, phos. ac., phos., lycop. conium, china, china ars., carbo veg., chamomilla, sulphur, pulsatilla, quinia sulph. and other remedies, at different times with little or no relief. Quinia sulph. seemed to do most for him in relieving the annoying flatulence, but aggravated the emissions. Finally I gave picrate of zinc, trituration[7x]. He steadily improved until when last heard

from his health was good, better than for years past and he was having an emission about once in six weeks.

He is a very methodical person, keeping exact account of each emission for over a year past. All his other symptoms have disappeared.

I have given the remedy to another patient similarly affected, but being impotent, without favorable results. He is improving on conium mac.

DISCUSSION.

Dr. J. H. McClelland said that the picrate of zinc was suggested to him by Dr. E. M. Hale for the condition of brain fag. Since then he had used it as justified by the experiments and provings of Dr. Pitcairn for the effects of spermatorrhœa, particularly the enervated feeling and the weak back.

Dr. Pitcairn had had several cases of obstinate nasal catarrh which had resisted all treatment. The discharge was offensive in character. These cases yielded very quickly to antimon. sulph. aurat.

Dr. Betts spoke in commendation of just such efforts as Dr. Farrington's in bringing together the remedies and their indications for certain regional difficulties. It is important for the general practitioner to have just such a list of remedies with their indications, and besides that it is important for us to have such lists to use in other ways than in the way which the author indicates. He referred to the transfer of the indications from such mucous membranes as those of the nose and throat to other cavities lined with mucous membranes, such for instance as the vagina and cervix uteri. If we will notice we shall find that in Dr. Farrington's paper there are some remedies mentioned which are found to be very efficacious in the treatment of uterine and cervical catarrh. We are quite deficient in having correct provings of remedies which affect this region for want of due observation during the time that the provings were being instituted on these parts. Being out of the way, symptoms produced in these parts were not noticed. Yet diseased conditions are quite as frequently met with in this locality as in the pharynx. If we pick out of such papers the symptoms which are applicable to similar condi-

tions in the mucous membranes of the genital tract it will aid us materially indeed in curing these otherwise difficult diseases. Take for example nux vomica and the acids, nitric acid, sulphuric acid, sepia, pulsatilla, mercury in its various preparations. These remedies we are accustomed to use for disease of the respiratory tract. We can use them for the same diseases affecting the mucous membrane of the genital tract. If we pursue this study we may be able to dispense with much of the local treatment which at the present time is occasionally necessary. The tendency of the members of the old-school profession is to discard more and more the local treatment and rely on the constitutional remedies. If we are not wide-awake it is to be feared that some of us will be outstripped by members of the opposite school. The old-school physicians in the practice of gynæcology are rapidly approaching our medical views. Only yesterday at the meeting of the Gynæcological Society held in this city, a paper was read on "Dysmenorrhœa," in which local treatment was denounced and such remedies as pulsatilla and cimicifuga praised. An eminent old-school physician has lately asserted that ergot is useless in post-partum hæmorrhage. Many of the physicians in our own school will not admit that statement. Let us investigate and apply our materia medica Transfer the symptoms of our remedies to other regions which have not yet been thoroughly explored and in this way we will keep ahead of the old-school in the treatment of diseases of this kind.

Dr. H. N. Martin could not agree with the statement of Prof. Betts with regard to the use of some medicines for the same indications for vaginal and uterine catarrh as we would for the larynx. Pulsatilla does not give the same kind of discharge from the vagina as from the larynx. From the vagina there is a milky, thin, corrosive discharge, while the discharge from the nasal passages and from the larynx will be thick, green and offensive. He (Dr. M.) had had a case of a lady with a catarrhal difficulty, in which she had a profuse discharge from the nostrils, expectoration that was green, thick and offensive. When that was relieved by internal medication she had following it a thin milky discharge from the vagina, and this went away and the other came back. The same may be true of many of our medicines. When you

make an examination of the cervix you find it inflamed and slimy. Belladonna will be indicated, and you find the same appearances as in the case of the conjunctiva when it is thoroughly inflamed.

Dr. H. C. Allen was pleased with Dr. Betts' remarks. He was glad to know that specialists are taking up special questions. Dr. Lee was right when, on Tuesday, he said that he was satisfied with the old-time homœopathy. Hahnemann taught us to treat the patient instead of the disease. Many of our physicians have departed from that rule. They have become specialists, have made money and have done much work. They follow local treatment because it is fashionable. They do it so that they may be doing something that is perceptible to the sight, touch or feeling of the patient. Reference has been made to the other school. The allopathic physicians have been treating local lesions by local means, surgical and otherwise. The more advanced of them are leaving these methods and are going back to the principles of Hahnemann. The old-school, without giving us any credit, will finally become the practitioners who are treating the patients and we the ones who are treating diseases. This is where we are drifting. In the treatment of intermittent fever, Dr. Allen said that he had failed to cure cases when he relied wholly upon the characteristics cropping out among the paroxysms. But taking the general symptoms into account, cases may be cured with calcarea, alumina, sulphur or some other remedy that one would never think of as applicable to intermittent fever. Many men in our profession send patients to a specialist, who makes topical applications, and sometimes relieves the local lesion to the detriment of the general system. An examination into the etiology of the worst cases of nasal catarrh will reveal the fact that the patient is in the habit of sopping the head with water when brushing or combing the hair. The more hair the patient has the more water is applied, and consequently the more to escape by evaporation, hence the patient catches cold. If you would suggest that the patient should put a couple of tablespoonfuls of water in his shoe and let it dry off by evaporation he would be astonished. If this habit of sopping the head could be stopped we could cure catarrh quicker. Another point is the action of tobacco on the nasal

mucous membrane, particularly of the posterior wall of the pharynx. A peculiar case of sneezing was reported in a recent number of the *Investigator*. Stopping the use of tobacco cured that patient.

Dr. B. W. James questioned the propriety of collecting our remedies and publishing them in domestic treatises. Young practitioners, instead of studying the materia medica, read over a certain class of remedies in the treatise, and he thinks he cannot go outside of that list. The actions of medicine differ in different localities. The remedy that relieves mucous discharges from the nasal passages may not be sufficient to relieve a similar discharge from other passages.

Dr. Dudley said that he had always been in doubt regarding the significance of the expression, it is the physician's duty to treat his patient and not the disease. He always thought that it was his duty to treat the disease and not the patient. If a man has congestion of the brain and we treat him allopathic fashion we give him purges. That is treating the patient, we certainly are not treating the disease, as we miss it by twenty-four inches. Hahnemann intended, by everything he wrote, to impress upon us the unity of the group of symptoms. We find symptoms that appear to be widely at variance, but he contends that all symptoms constitute parts of a single whole. It is our duty to aim our remedy at the unity of the group of symptoms—the totality we call it. The symptoms probably have a similar central origin. They are all links in a continuous chain. We have to deal with symptoms, the outward expression of inward disease. We ought to leave the patient, for the time being, out of sight. Some one asks, what will you do with temperament, with habits, with constitutions, with dyscrasias. These are parts of the patient, and it is admitted must be taken into account.

Dr. Betts, in referring to Dr. Martin's remarks concerning pulsatilla, said that the thin milky vaginal discharge was readily accounted for. It comes from the admixture of the mucus from the uterus and vagina. If an examination with the speculum be made in these cases, the discharge coming from the uterus will be found similar in every respect to that coming from the pharynx when pulsatilla is indicated. Pulsatilla is quite as efficacious in

curing thick, greenish, vaginal discharges as it is for the treatment of thick, greenish discharges from the posterior nares.

Dr. Martin replied, that unfortunately he had not found pulsatilla to be indicated for those thick, greenish discharges when seen by the speculum unless all other symptoms pointed unmistakably to it as the remedy.

REPORT OF BUREAU OF GYNAECOLOGY.

In the absence of the chairman of the Bureau of Gynæcology, Dr. B. F. Betts presented the following paper, which was accepted and referred to the Publishing Committee:

Laceration of the Cervix Uteri, by the Lehigh Valley Society.

LACERATION OF THE CERVIX UTERI.

BY THE LEHIGH VALLEY SOCIETY.*

The subject for this occasion is laceration of the cervix uteri; its etiology, pathology, prevention and treatment, and the clinical report of some cases operated by myself and the subsequent results to date.

The first literature on this subject was brought before the medical profession by Dr. Thomas A. Emmet of New York City, some eight or ten years ago, since which time it has been discussed by different writers and medical societies. To Dr. J. Marion Sims belongs as much credit as to any man, for further bringing it into practical use by his different modifications of the operation, and by the invention of the different instruments used in his operation.

Childbirth is almost always the immediate cause of laceration of the cervix uteri. Occasionally uterine dilators in the hands of inexperienced operators have caused laceration. Sponge tents have been known to have caused it. The forcible extraction of a

* This paper was prepared for the Society by Dr. W. A. Hassler

fibroid tumor through the cervix has caused the same result. Abortion has been the cause a great many times, especially where instruments have been used to destroy the embryo, and from the injury produced to the cervical canal inflammatory action set up, and as a consequence induration and swelling of the neck of the womb. It may also be caused where the abortion is the consequence of an unhealthy condition of the neck, causing a rigidity of the muscular fibres of the body and neck of the uterus, producing premature labor pains. The premature delivery of the child follows; during the expulsion the muscles of the neck being in an inflamed condition will not yield, and consequently you have a tear. It may also be caused by imperfect development of the cervix. It may be caused by contraction of the ligament attached to the cervix. Deformities of the pelvis or tumors that displace the neck of the womb out of its natural position will also cause it.

As a rule, a diseased uterine cervix will prevent impregnation, but there are many exceptions. When a woman becomes pregnant and her uterus is in a condition as described, when labor begins, the cervix uteri being incapable of dilation, there will usually be a rupture. Again, where there is retroversion with flexion, and vice versa, pregnancy is very rare. Now and then however, you will find that in spite of the worst flexion they will become pregnant, and in these subjects you find the very worst lacerations.

I wish to make a remark here that will, I think, help us out of our astonishment in finding women become pregnant when they have the worst flexion. Prof. Wylie demonstrated to me this past winter that sometimes when you see a flexion almost at right angles, you may be disappointed when you examine that woman again to find the canal perfectly straight or in its natural position; and again in a week's time you will find the uterus flexed just as you found it in the first examination. Since I know the fact I have taken special care to watch these cases, and found two such cases in my practice in the last three months. I am satisfied from these facts that even where there is a decided flexion, it is not constant during the whole month between the periods, but that it will become almost normal in some subjects. Where the inflammation is not cured in these cases, the neck of the

uterus will not soften enough before labor begins, and a great many of these cases will have laceration during the passage of the fœtus. There are other causes for rupture of the neck of the womb, such as cancer, syphilis and pelvic cellulitis. In hurried labor, by giving ergot even when the os uteri is perfectly healthy, hurried delivery by instruments where the child is large and where traction is made during expulsive pains, abnormal presentations, early rupture of the membranes when the liquor amnii all escapes and you afterwards have a retarded labor, the tissues of the cervix become dry and œdematous, and consequently will lose their elasticity. Under such conditions the cervix will, in many cases, be torn.

The laceration of the cervix uteri may be lateral or antero-posterior. In lateral lacerations you will generally find both sides torn, while in antero-posterior rupture you will find only either one or the other, very seldom both; and the proportions to either the lateral or antero-posterior are about four to one. In lateral laceration you will find more frequently that the rupture on the left side is the largest, and in antero-posterior lacerations the anterior more frequent than the posterior.

In studying the changes which occur after the laceration, we must know what the cervix is composed of, and which of the parts are injured.

First. The mucous membrane.

Second. The tissues—the deep muscles, which are mostly circular.

The mucous membrane may be torn without any tear in the tissue or the circular muscles—and again you may have a laceration of the deep muscles without any rupture of the mucous membrane—the same as in some cases of lacerated perinæum. You may have a very slight tear in the mucous membrane without, while the tissues and muscles may be torn to the internal os. Many of these accidents happen, and when not complicated do heal up and cause no trouble; and a great many more of these cases would do much better—where the first cause, inflammation, is not severe—if the lying-in women would keep their beds for the first two weeks or longer, and if the physician would pay more attention to inquire about the condition of the woman. In

nine out of every ten cases the discharge that comes away from a woman at the end of two weeks generally tells the tale. If the woman has a discharge of pus mixed with blood and mucus, do not be deceived, but make up your mind that you have a case where it requires your attendance, and where it is your duty to make an examination and discover the cause of trouble.

Many times, during the past winter, I felt mortified to listen to the answers given to questions by patients. Questions asked by allopathic professors and physicians. Patients with hypertrophy, lacerated cervix, pelvic cellulitis, endometritis, ovaritis, ulcerations, etc., treated by homœopathic physicians for one, two and three years, without even making an examination during all that time.

How can any physician treat such cases successfully when the sympathetic and nervous reflex symptoms are alike, or very nearly similar in any or all of these diseases?

How can anyone discover the bell. symptom in a throat except he sees it?

How can you know the puls. symptom in an eye unless you examine it?

The same rule holds good in pelvic diseases of women. You must make an ocular inspection through the speculum to find out the trouble and fully verify the symptoms.

The same with local treatment in uterine diseases. A great many homœopathic physicians denounce local treatment in diseases of the womb. Why is it that the homœopathic physician, a specialist on the eye, will use nitrate of silver, sulphate of copper, sugar of lead, carbolic acid in solution as a local application in such diseases of the eyes as it may be indicated?

I have cured chronic vaginitis in from two to three weeks, where the mucous membrane was denuded of its epithelium, and where half of the surface of the vagina was spotted with unhealthy granulations, by introducing a tubular speculum and pouring into that one-half ounce of a ten grains to the ounce solution of nitrate of silver—the same as the homœopathic oculist will use a solution of sulphate of copper in granular eye-lids. I fully believe that the time will come when homœopathy will moderate its prejudice against uterine treatment; and when that

time will come—and it will come soon—then the homœopathic school will advance to the front ranks in uterine surgery, and will stand alongside with the oculist and surgeon in our school, and will show the same grand results. Thanks to Prof. Ludlam of Chicago, for his good common sense teachings in his work on diseases of women. And let me here advise all members of this society, if they do not already have his work, to procure it and study it. But enough of this, I will continue my subject.

I have given some of the causes and effects of a lacerated cervix, now I will say a few words concerning its prevention and cure. When a woman becomes pregnant it must not be taken for granted that the neck of the womb is in a perfectly healthy condition, or if healthy at the time, that it will remain healthy during the period of pregnancy. Morning sickness may occur without any perceptible disease of the cervix, and the vomiting and sickness may be cured with the ordinary remedies. When, however, the remedies fail, and the nausea and vomiting continues, when the woman has leucorrhœal discharges, irritable bladder, headache and all the symptoms of inflammatory affection of the uterine cervix, an examination should be made and the diseased cervix treated, not simply to relieve the symptoms of nausea, but to get the uterine cervix softened and bring it into a healthy condition before labor begins. Applications of glycerine with bell. or gel. hydrastis, calendula, carbol. acid, or which ever the indicated remedies may be. The medicine to be applied on cotton over night. Warm water injections can safely be endured during pregnancy and should not be neglected. If the neck of the uterus will still continue to be hard, and the symptoms of nausea are not relieved, I then use the uterine dilator, inserting it a half an inch up the neck; this will have the desired effect, curing the nausea and softening the neck, which in a few days will become shorter, and will have the natural shape as it should have in pregnancy. The danger of inducing an abortion by local treatment is by no means as great as you might think; with reasonable care many more cases of abortion and premature births could be avoided than would be caused by the treatment. When the physician comes to the bedside of a woman about to be confined and finds a rigid os uteri, he should select the necessary remedy, and help to dilate the

os with the finger or with elastic dilators, and when he finds that the neck will not slip readily over the child's head at some places, he should assist. Be careful not to rupture the membranes before it is absolutely necessary. If the parts are very dry use vaseline to lubricate them. We have the record that the forceps, used as before mentioned, has produced laceration of the cervix. I know, however, that the forceps, timely and skillfully used in a retarded labor, will prevent some of the worst lacerations. Traction should always be made between the pains; which is my way of delivering by the forceps in all cases. The sequelæ of lacerated cervix are many and complicated. I shall mention some of the most serious: Sub-involution, endometritis, erosion of the everted lips of the cervix, cystic degeneration of the mucous membrane, retro-and ante-version, retro-and ante-flexion or both, pelvic cellulitis, pelvic peritonitis, malignant disease of the cervix, etc.

When you examine a woman complaining of uterine trouble, and find an elongated womb, four to five inches long, look for a laceration of the cervix. Dr. Emmett says, all sub-involutions are caused by laceration of the cervix. That may, however, be a sweeping assertion, but you can figure on ninety per cent. of sub-involution where the cause is laceration in one form or another as described before. Many of the cases of lacerated cervix require no particular treatment in the primary stage if the laceration is small and the parts are kept clean with warm water containing a little calendula and carbolic acid.

Where the physician is aware of the laceration and knows that the tear is large, the laceration should be sewed up immediately after delivery, before the woman is much on her feet. Not only will the laceration be cured, but all the sequelæ that follow a lacerated cervix will be prevented.

Unless the laceration is sewed up after the accident when the edges are fresh, it will be better to wait until involution has taken place, about six weeks after delivery. The operation should be performed by paring the edges and sewing up the wound, not only for the curing of the laceration, but for the sub-involution that may exist at the same time. If the accident has not been discovered, and the woman comes to you in four, six or ten months, or in so many years, like many do, with all the sequelæ and a bad

laceration—here you have a case for preparatory treatment before you will be able to perform the operation. And here you have a case where homœopathic treatment is far ahead of the old-school by giving the indicated remedies. Secale cor. will be of great service in a great many cases in assisting to reduce the sub-involution, and such remedies as bell., sepia, colocy., tartar emetic will be indicated remedies in these cases, and will be of great service. The local treatment should be looked after, and vaginal injections of warm water should be used by the gallon a few times daily. Keep the patient in the recumbent position as much as possible, make speculum examinations a few times a week to apply such local remedies as hydrastis, glycerine, calendula, glycerine carbolic acid, glyc. nitrate of silver—solution five grains to the ounce is very serviceable in some cases, and glycerine on cotton plugs placed against the cervix at night. By this treatment you may be able to get the cervix in a fit condition to operate on in from four to six weeks. Trachelorrhaphy is usually an operation without danger to the patient, and if the after-treatment is conducted properly there is perhaps no operation in uterine surgery that will accomplish so much good and lasting benefit. Having the proper instruments, you place your patient in Sims' position, using a Sims' speculum, having an assistant to hold the speculum steady, and another assistant to your right to hold the different tenaculums and the depressor—you are ready for the operation without ether. If you give ether, your assistant administering the same should be a competent man and should pay all his attention to that alone during the operation—the operation lasting from one hour and fifteen minutes to one hour and forty minutes. The temperature of the room should be from eighty-five to ninety degrees.

You commence by paring the edges of its mucous membrane, first one side if a double laceration, and then the other, being careful to leave a space in the center undenuded for the cervical canal. You bring the wound together with silver sutures. The stitches should be from a sixth to a quarter of an inch apart. After the operation is finished you place your patient in bed, to stay there for two weeks. The first twenty-fours it is advisable to draw the urine—after that the patient takes the hand and knee

position in passing the water. Give arnica from the start. Injections of warm water containing calendula and carbolic acid, with a fountain syringe, a half a gallon at a time, three or four times a day. Keep the bowels confined for four or six days; by that time give an injection of a quart of warm water—use a bed pan—keep the patient from sitting up in bed for the first ten days. About the tenth day you will be able to remove the sutures. After the sutures are removed introduce a sound or probe to explore and see whether you have a free and unobstructed cervical canal.

Thus I have given a brief description of laceration of the cervix uteri—its sequelæ—its treatment before the operation—the operation and its benefits, and the after-treatment. I will finish by giving you a few clinical cases.

Miss L——, aged 20 years, had an abortion two and a half years ago. Has been sick ever since. Has had the care of physicians most of the time. Lateral laceration left side to internal os. Right side only the mucous membrane. Uterus four and a half inches long. Operated June 10th, 1883, without ether. Used five sutures on left and two on right side. Removed sutures on the tenth day. Found perfect union with a good cervical canal. Menstruation appeared ten days after the sutures were removed, losing only half the quantity of blood, or about normal. Examined her ten days after the flow stopped and found the uterus reduced from four and a half inches to three and a half inches. I again examined her on March 15th, and the uterus measured two and three-quarter inches. Gave arnica for two weeks, and then gave the indicated remedies—bell.[30], one week and colocynth.[30], the next week. She has gained ten and a half pounds. Discontinued medicine. She is perfectly well.

Mrs. K——, aged 28 years. Was confined seven years ago, when she sustained a slight laceration, but which did not disturb her general health very much. Was again confined three years ago, when the slight laceration enlarged, and she suffered from profuse menstruation and all the nervous symptoms following the complaint. Uterus measures five inches. Operated February 4th, 1883, with ether. Sutures on either side. Lateral lacerations. Removed sutures on the ninth day and found union and unobstructed cervix. Examined her again after the next period (when

her loss of blood was nearly normal) and found the womb four and a half inches long. I again examined her on March 20th, and the uterus was three and a half inches long. Gave arnica for two weeks. Then gave cal. phos., three powders a day for four weeks. After that gave cimicifuga^{3x}, four No. 40 pills once per day. Has gained eight pounds and feels well.

Mrs. M——, aged 43 years. Has been troubled with uterine disease since the birth of her last child ten years ago. Menstruation regular every four weeks—flow lasting two weeks. She was nothing but a skeleton covered with a skin. Could hardly go out of the house. No appetite. Sick at the stomach during her whole period of two weeks' flow. Uterus measured five and a half inches. Lateral laceration. Gave her two weeks' preparatory treatment, secale cornutum^{3} one week and colocynth^{3} the next week. Operated February 12th, 1883, without ether; four sutures on either side. On the eighth day I removed the sutures, and found the wound united, and the canal open. Ten days after the sutures were removed she began to menstruate, lasting eight days without sickness of the stomach and a good appetite. Examined her ten days after the period and found the uterus reduced to four and a quarter inches. Continued using secale and colocy., until after the examination, when I changed to secale, once a day. I saw her a few days ago, and she looks fifty per cent. better; gained seven pounds; sleeps well. All her nervousness is gone and she continues to improve.

DISCUSSION.

Dr. I. G. Smedley said that the subject of gynæcology is an important one, which should interest every physician. The report of the Bureau of Gynæcology has been left until the very last session of the meetings, and as a consequence the subject has been passed over quickly without due consideration. Every general practitioner, as well as every specialist, knows how difficult it is to cure many forms of uterine disease. As homœopaths, we must occasionally treat patients locally. It has been said that allopaths are beginning to treat cases entirely by constitutional measures to the neglect of local treatment. This statement, he disagreed with. Allopaths are learning that diseases may be cured

by constitutional measures. In a moderately large experience with the practice of leading men of the old-school, Dr. Smedley had noticed that they cure the local symptoms of uterine disease more quickly than we do. But there are certain nervous symptoms remaining which they do not cure. Now, we cure those nervous symptoms before we cure the local trouble. Still these symptoms return for we cannot cure them with medicine alone. Take for instance, laceration of the cervix. The allopaths, whenever there exists a train of nervous symptoms which might arise from a lacerated cervix, but which are due to other causes, attempt to cure them by an operation. Of course they fail and consequently they lose faith in the efficacy of the operation in all cases. Educated allopaths individualize their cases. They know when to operate and when not to operate. A number of cases within my knowledge have been under the treatment of the best men of our school, men who are good prescribers, but they were only relieved temporarily. An operation has cured these cases promptly. Some cases in which there are congestion and erosion of the cervix must be treated by scarification to relieve the congestion. The uterus rubbing over the floor of the perinæum, the congestion becomes more aggravated. That uterus is to be kept out of the vagina. Healthy action must be brought about by some depleting remedy, for instance, glycerine to relieve congestion, scarification to bring on bleeding. In other cases the nabothian follicles must be opened, but with these all, we must have constitutional treatment. When a woman has a laceration of the cervix she suffers all over. She has headache, nervous symptoms and heart symptoms. After the operation has been performed, she goes about feeling like a new woman. In treating cases of dysmenorrhœa, we must individualize. For instance in cases of apparent stenosis, the canal changes at the menstrual period Sometimes between the menstrual periods we may not be able to introduce the sound. At the time of menstruation the canal becomes relaxed and the flow can come on easily. Hermann, an English gynæcologist, has investigated the question of dysmenorrhœa and ante-flexion thoroughly. He has found that in fifty per cent. of all cases of ante-flexion there was no dysmenorrhœa. These cases must be individualized. Some cases of dysmenorrhœa may be due

to ante-flexion and others may have dysmenorrhœa without ante-flexion. In some cases it may be due to stenosis of the cervix. In married women where there is dysmenorrhœa and sterility, dilatation can be accomplished. The menstrual flow then comes on easily, the patient becomes pregnant and a cure is finally effected. Dilatation will sometimes cure in single women. Allopaths are beginning to individualize. They know when to dilate and they know that cases must be treated constitutionally *as well as* locally.

Dr. H. N. Martin said that those who depend upon the potentized remedy and constitutional treatment are too apt to neglect a careful examination of the case. How many practitioners there are who do not think it necessary to know what the matter is in the case of uterine diseases. They must examine the throat or the eye, but they never think it necessary to make a vaginal examination. By making these examinations we often obtain symptoms which indicate the remedy. Dr. Thomas Addis Emmett has remarked, that caustic applications in cases of erosion of the cervix will heal the erosion, but seems to pave the way for cancer late in life.

Dr. J. H. McClelland agreed with Dr. Smedley that our school, as a school, too much neglect the local treatment of uterine diseases. Many of these cases are purely local in their manifestations, and experience shows that these are not relieved by constitutional treatment. The simple teaching of that fact is that we should combine constitutional and local treatment. The old-school physicians err in confining themselves to local treatment.

Dr. B. W. James said that sometimes lacerations of the cervix will heal or unite without the aid of an operation and give fairly good results. In other cases, where there is a tear and a sloughing of the parts, healing may take place irregularly and give us a dense cicatrix, which may bring on secondary symptoms.

Dr. Harriet J. Sartain did not think that she would have to use scarification, as recommended by Dr. Smedley, as long as she could use cimicifuga. She also stated that she rarely met with ante-flexion. She did not see how ante-flexion, existing before gestation, could have any effect in producing laceration of the cervix during labor. Speaking of vaginal examinations, Dr. Sartain said that she felt certain that the reason our school made so few, was because

the old-school made so many. Cleanliness, as suggested by Dr. Martin, is an important measure, but there are many cases of laceration that seem to require a stimulating treatment. Very many cervical lacerations can be healed by the appropriate internal remedy and a few local applications. There are some cases that require operation, but these are few in number.

Dr. B. W. James said that where it was possible, he used the same remedy locally and internally.

Dr. I. G. Smedley, replying to the remarks of Dr. Sartain, said that he did not consider scarification often necessary, but there are cases in which it is impossible to make a cure without it. In regard to ante-flexion, Dr. Sartain's experience has been a happy one in comparison with his, for ante-flexion, especially in the nullipara, is the rule and not the exception. The axis of the cervix is thrown forward. The weight of the uterus naturally tends to throw the fundus still further forward on the bladder. When the bladder is full the fundus is thrown backwards, but in the majority of cases the cervical canal is curved forward. Dr. Hermann examined healthy women locally—that is, cases that were brought to the hospital for other symptoms than uterine. In 50%. of these he found congenital ante-flexion. It is not all of these cases that require treatment, but some must be treated. Where there is dysuria and polyuria the fundus must be propped up. Ante-flexion causes laceration of the cervix only rarely. Where the bending is marked, the cervix will have a certain part of its tissue in which the circulation is poor, thus causing an atrophy of the tissue. In these cases laceration is liable to occur. Many cases in which there are erosions can be healed over, but soon the erosions will return and will have to be treated over again. In many cases of laceration of the cervix, in which there is congestion of the uterus, the laceration appears much larger than it does at a later period when the congestion is relieved. The subject of operation for laceration of the female perinæum has been referred to. It has been said that the benefit accruing from these operations was but slight. That is true if the old operation was referred to. Here the stitches are introduced on the outside, and when union has taken place the cutaneous surface of the perinæum only has been restored. Dr. Smedley's manner of oper-

ating in these cases was to denude the perinæum well up. He introduced the sutures in the vagina and not on the outside at all. In this way we have a broad perinæum. This is often the method of Prof. Simon of Heidelberg, but instead of the silk sutures employed by him, which are very difficult of removal, he used catgut sutures, as suggested by Prof. C. M. Thomas, which are allowed to remain until absorbed.

Dr. B. F. Betts, in closing the discussion, remarked that in the treatment of any case we should never be guided by the dictum of another; but we should individualize each case and do for that case without fear, favor or prejudice, everything that we believe to be best for the case. So successful have been the results in the cases of lacerations of the perinæum and cervix, that no matter who shall proclaim these operations to be useless, he should still continue operating.

NEW BUSINESS.

Dr. L. H. Willard, chairman of the committee to which the President's Address had been referred, presented their report, which, after being amended to read as follows, was adopted:

To the Homœopathic Medical Society of Pennsylvania:

Your committee would report that they have carefully considered the earnest and eloquent address of the President, and would respectfully present the following propositions contained therein for your consideration:

I.—That the By-Laws be so amended that no member shall serve on more than one bureau.

II.—That the President appoint two members to open the discussion on each bureau.

III.—That no bureau shall occupy more than one hour and a half in the presentation of its papers and discussions, except by a vote of two-thirds of the members present.

IV.—That the Committee on Legislation be instructed to use every endeavor, consistent with the interests of homœopathic physicians, in securing the passage of a law creating a State Board of Health.

V.—That all other matters in the address pertaining to legislation be referred to the Committee on Legislation, without instructions.

Respectfully submitted,

L. H. Willard, M.D.,
W. M. DuFour, M.D.,
W. B. Trites, M.D.,
Committee.

Drs. H. C. Allen of Ann Arbor, Mich., and W. A. Phillips of Cleveland, O., were proposed and unanimously elected honorary members of the Society.

Dr. Richard Hughes, of Brighton, England, was proposed and unanimously elected a corresponding member.

The resignation of Dr. H. Augusta Kimball was presented, and, on motion, accepted.

The following communication was presented:

PHILADELPHIA, Nov. 18th, 1882.

J. F. COOPER, M.D.

DEAR DOCTOR:

Please have my name taken off the list of members of the State Society. My increasing age prevents me from enjoying any of the advantages of membership and I therefore wish to withdraw. I have wished to take this step for a couple of years past, but it has always escaped my memory until the year was too far advanced.

Yours fraternally,

AUG. W. KOCH, M.D.

The Society, by vote, unanimously declined to accept this resignation, and the Bureau of Organization, Registration and Statistics was instructed to prepare an amendment to the By-Laws which will allow the Society to retain its veteran members, free from all pecuniary or other obligations.

After a few minutes deliberation the following was offered as an addition to Art. IV., Sec. I of the By-Laws, and, on motion it was adopted:

Any member, who shall be unable to comply with the requirements of this section, may be continued as an active member, without payment of dues, by vote of the Society.

Prosper Bender, M.D., a corresponding member of the Society, having removed to within the borders of the United States, the Secretary was instructed to omit his name from the rolls of membership, and notify him of the fact.

The bill of the Corresponding Secretary for mailing Transactions, postage and printing was ordered to be paid.

On motion, Pittsburgh was selected as the place for the next meeting, which is to be held in the latter half of September, 1884.

On motion of DR. PITCAIRN, the Society then proceeded to the election of officers for the year 1884, with the following result:

President, . . .	W. R. Childs, M.D.
First Vice President, .	C. Mohr, M.D.
Second Vice President, .	H. Detwiller, M.D.
Recording Secretary, . .	C. Bartlett, M.D.
Corresponding Secretary, .	R. E. Caruthers, M.D.
Treasurer, . . .	J. F. Cooper, M.D.
Necrologist, . . .	M. M. Walker, M.D.
Censors, . . .	J. K. Lee, M.D. of Phila. L. H. Willard, M.D. H. J. Sartain, M.D.

The following appointments were then announced:

Committee of Arrangements.—The Officers of the Society.

Local Committee of Arrangement. — The Allegheny County Society.

Committee on Subscription.—J. F. Cooper, M.D.

Committee on Legislation.—H. Pitcairn, M.D., *Chairman*, Drs. A. P. Bowie, J. K. Lee, of Philadelphia, J. S. Skeels, J. J. Detwiller, J. B. McClelland, J. A. Bullard.

Committee of Publication.—Drs. R. E. Caruthers, J. F. Cooper, C. Bartlett.

Delegates to the American Institute of Homœopathy. —B. W. James, M.D., *Chairman*, Drs. Eliza H. Lang-McClure, W. M. Du Four, S. Starr, R. C. Allen, L. G. Rousseau, E. Cranch, S. Brown.

Bureau of Obstetrics.—H. N. Guernsey, M.D., *Chairman*, Drs. J. C. Guernsey, W. R. Childs, D. Cowley, H. Detwiller, G. E. Gramm, O. T. Huebener, D. Karsner.

Bureau of Clinical Medicine. — J. K. Lee, M.D., of Johnstown, *Chairman*, Drs. W. J. Martin, C. Mohr, H. Pitcairn, W. W. Van Baun, J. R. Horner, I. Lefever, J. C. Morgan, S. Starr, F. J. Slough.

Bureau of Sanitary Science.—J. B. Wood, M.D., *Chairman*, Drs. J. K. Lee, of Philadelphia, W. B. Trites, R. E. Caruthers, E. C. Parsons, J. F. Cooper, J. H. Young.

Bureau of Ophthalmology and Otology.—C. Bartlett, M.D., *Chairman*, Drs. B. W. James, W. H. Winslow, H. F. Ivins, W. H. Bigler, W. H. H. Neville, J. E. Jones, P. Dudley.

BUREAU OF PÆDOLOGY.—C. Van Artsdalen, M.D., *Chairman*, Drs. C. S. Middleton, E. S. Sharpless, S. F. Shannon, M. M. Walker, Lora C. Jackson, W. M. Zerns, T. M. Johnson, E. M. Gramm, H. M. Bunting, W. F. Edmundson, J. Malin, W. P. Mullin.

BUREAU OF SURGERY.—J. H. McClelland, M.D., *Chairman*, Drs. C. M. Thomas, J. J. Detwiller, J. E. James, L. H. Willard, P. O. B. Gause, E. Reading, W. A. Hassler, W. T. Maguire.

BUREAU OF MATERIA MEDICA.—R. P. Mercer, M.D., *Chairman*, Drs. E. A. Farrington, I. Crowther, R. C. Allen, H. N. Martin, A. Korndoerfer, E. Fornias.

BUREAU OF GYNÆCOLOGY.—Millie J. Chapman, M.D., *Chairman*, Drs. Harriet J. Sartain, B. F. Betts, C. P. Seip, Sarah J. Coe, I. G. Smedley, Emma T. Schreiner.

BUREAU OF PATHOLOGY AND PATHOLOGICAL ANATOMY.—W. C. Goodno, M.D., *Chairman*, Drs. A. R. Thomas, J. A. Bullard, C. H. Hofmann, J. N. Mitchell, T. E. Parker, J. H. Helfrich.

BUREAU OF ORGANIZATION, REGISTRATION AND STATISTICS.—R. E. Caruthers, M.D., *Chairman*, Drs. J. C. Burgher, W. W. Van Baun, F. R. Schmucker, T. M. Johnson.

On motion of DR. J. C. GUERNSEY, one of the large plateaux of flowers, left in the hall after the banquet, was sent to Mrs. Dr. C. Hering with the compliments of the Society.

DR. MOHR moved that a vote of thanks be tendered Mr. Walter E. Hering for the beautifully printed "Souvenirs of the Park Drive."

DR. MCCLELLAND moved a vote of thanks to the Philadelphia County Society for their complete arrangements, elegant entertainments, and the general success of this meeting.

DR. GUERNSEY moved that the Secretary convey to Mr. S. Murray Mitchell, manager of the Aldine Hotel, the thanks of the Society for his careful arrangements for its comfort.

Votes of thanks were tendered to President Dudley, First Vice President Pitcairn, Treasurer Cooper, Secretary Caruthers, Stenographer Bartlett, the Committee of Arrangements, and the newspaper Press of Philadelphia, for the manner in which each and all had performed their several duties.

The Society then adjourned.

CONSTITUTION AND BY-LAWS.

CONSTITUTION.

ARTICLE I.—Name and Object.

This Association shall be known as the Homœopathic Medical Society of the State of Pennsylvania.

Its object is the advancement of medical science.

ARTICLE II.—Members.

This Society shall be composed of active, honorary and corresponding members, who shall be chosen in conformity with the By-Laws.

ARTICLE III.—Officers.

The officers of this Society shall be a President, two Vice Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, a Necrologist, and a Board of Censors consisting of three members; who shall be chosen at such time, in such manner, and for such a period, and shall perform such duties as the By-Laws may direct.

ARTICLE IV.—Amendment.

This Constitution may be altered or amended by a vote of two-thirds of the members present at the annual meeting; provided, that notice of such intended alteration or amendment shall have been given to the Society, in writing, at the annual meeting next preceding.

BY-LAWS.

ARTICLE I.—Meetings.

Section 1. The annual meeting of this Society shall be held at 10 A. M., at the time and place decided upon at the annual session next preceding.

Seven members shall constitute a quorum for the transaction of business.

Sec. 2. The elected officers of the Society shall have power to direct such other meetings to be held as they may judge advisable.

ARTICLE II.—Officers.

The officers shall be elected by ballot at each annual meeting of the Society, and shall enter upon their respective duties on the first day of January next succeeding their election.

ARTICLE III.—Duties of Officers.

Section 1. The President shall preside at the meetings of the Society, preserve order therein, put questions, announce decisions, and appoint committees not otherwise ordered. He shall deliver an address at the opening of the session.

Sec. 2. The Vice Presidents, in the order of their election, shall perform the duties of the President, in his absence.

Sec. 3. The Recording Secretary shall keep a record of all the proceedings and resolutions, and of all discussions that may occur in the Society; authenticate by his signature all papers and acts of the Society, when the occasion requires it, and bring before the Society any business, needing its action, not otherwise presented.

Sec. 4. The Corresponding Secretary shall receive and preserve all letters addressed directly to the Society; open and maintain such correspondence as shall tend to advance its interests; give at least two weeks' notice, to the members, of all meetings of the Society; keep a record of all members, with the date of admission

of each; present all communications to the Society; notify all committees of their appointment and of the business referred to them, and notify all members of their election. He shall be *ex officio* chairman of the Bureau of Organization, Registration and Statistics.

SEC. 5. The Treasurer shall notify, annually, all members of their arrearages, collect all money belonging to the Society, and make all disbursements ordered by the Society. He shall furnish, at each annual meeting, a written report of his receipts and expenditures and a statement of the condition of the finances.

SEC. 6. The Necrologist shall, upon the death of a member of the Society, prepare a suitable obituary and present it to the Society; he shall also forward a copy, properly engrossed, to the family of the deceased member, if so ordered by the Society.

The report of the Necrologist shall be presented in connection with the reports and papers of the Bureau of Organization, Registration and Statistics.

SEC. 7. The Censors shall receive and examine the credentials of candidates for membership, and shall report to the Society, for election, such as may be found to be properly qualified.

Their report can be made in its regular order or at the close of the report of any bureau.

ARTICLE IV.—MEMBERSHIP.

SECTION 1. *Active.*—A candidate for active membership shall present to the Board of Censors a written application, signed by himself, accompanied by a certificate, from two members of the Society in good standing, that the applicant has received the degree of Doctor of Medicine, from an incorporated medical college; that he subscribes to the doctrine of *Similia Similibus Curantur*, and that he sustains a good moral character. If found qualified, he may be elected a member. He shall not, however, be considered a member until he has paid an initiation fee of five dollars (which includes the first year's dues), and signed the Constitution, either in person or by proxy.

Any active member removing from the State, wishing to retain his membership, shall notify the Society to that effect; otherwise his name shall be dropped from the roll.

Any active member who fails either to attend the annual meeting or to send a paper, once in five years, or to pay his dues, shall, upon vote of the Society, be dropped from membership.

Any member, who shall be unable to comply with the requirements of this section, may be continued as an active member, without payment of dues, by vote of the Society.

SEC. 2. *Honorary.*—Any homœopathic physician, not a resident of Pennsylvania, who, from his superior attainments, may be judged worthy, may be elected an honorary member at any annual meeting, but not more than two shall be elected in one year.

Such honorary members shall have all the privileges of members, except the right to vote and to hold office.

SEC. 3. *Corresponding.*—Any homœopathic physician residing outside of the United States, may be elected a corresponding member, at any annual meeting, but not more than two shall be elected in one year.

Such corresponding members shall have all the privileges of members, except the right to vote and hold office.

ARTICLE V.—DUES.

Active members shall pay, annually, in advance, the sum of three dollars toward defraying the expenses of the Society.

The published proceedings of the Society will be furnished only to those members who are not in arrears.

ARTICLE VI.—BUREAUS AND COMMITTEES.

SECTION 1. The following Bureaus shall be appointed as hereinafter provided:

One of Materia Medica and Provings.

One of Homœopathic Institutes and Clinical Medicine.

One of Surgery.

One of Obstetrics.

One of Gynæcology.

One of Pathology and Pathological Anatomy.

One of Ophthalmology and Otology.

One of Pædology.

One of Sanitary Science.

One of Organization, Registration and Statistics.

SEC. 2. Each bureau shall be composed of not less than five members.

SEC. 3. Each bureau shall present, in its annual report, a resume of the discoveries and progress in its special department, together with the papers presented for discussion. The bureaus shall report in order of rotation, each succeeding year.

SEC. 4. The bureau of Organization, Registration and Statistics, shall receive all credentials of delegates to the Society; receive and preserve all reports from local or State societies, colleges and other institutions; keep a record of the number of members admitted and withdrawn from the Society; solicit an exchange of publications with other State societies, and perform such other duties as may be directed by the Society. From these data, the annual report of the bureau shall be prepared.

SEC. 5. Immediately upon the close of the report of a bureau, the President shall appoint a chairman for the ensuing year; and the chairman so appointed shall, in conjunction with the President, select his associates, and the list of members of the bureau shall be announced before the close of the session.

SEC. 6. If any member of a bureau shall resign or decline to serve, the chairman of the bureau shall fill the vacancy by appointment, and notify the Corresponding Secretary of the fact.

SEC. 7. The following Standing Committees shall be appointed, as hereinafter provided for:

A Legislative Committee.

A Publishing Committee.

SEC. 8. Each of these committees shall consist of at least three members to be appointed by the President.

SEC. 9. The Legislative Committee shall give special attention to all legislation involving the interests of the Society.

SEC. 10. The Publishing Committee shall publish and issue the Transactions, to all who are entitled to receive them, within three months from the date of the meeting, unless otherwise directed by the Society at its annual meeting.

The Recording and Corresponding Secretaries and the Treasurer shall constitute this committee, but the number of members may be increased at the discretion of the Society.

ARTICLE VII.—Papers and Discussions.

Section 1. Each paper presented to the Society shall be through its appropriate bureau. All papers to be presented by any bureau shall be in the hands of the chairman thereof, at least two months prior to the meeting of the Society; and the chairman of a bureau shall have plenary power, and it shall be his duty to prepare an abstract of the various papers, and these only shall be presented to the meeting for its consideration and discussion; nevertheless, all papers shall be published in the Transactions in full as written, subject to the approval and revision of the Committee of Publication. No report or paper will be received, by the Society, in an incomplete or unfinished condition; and no paper shall be published as part of the transactions, which has been previously published.

Sec. 2. All communications read before the Society shall become its property; but no paper shall be published as part of the transactions of the Society without its sanction.

Sec. 3. All discussions shall be strictly confined to the subject of the paper or report, and each speaker shall be limited to a speech of ten minutes, and to one of five minutes if he speaks a second time, and no excess of time shall be allowed except by consent of the Society. The reader of the paper shall be allowed ten minutes at the close of the discussion.

Sec. 4. Each county or local society shall be invited to prepare and discuss, during the year, a paper upon some medical subject, and present it to the Society at its annual meeting, through its appropriate bureau.

ARTICLE VIII.—Amendments.

These By-Laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting.

ORDER OF BUSINESS.

1. Calling meeting to order.
2. Address by the President.
3. Roll-call and correction of list of members.
4. Appointment of Committee on President's Address.
5. Report of Treasurer.
6. Appointment of Auditing Committee.
7. Report of Corresponding Secretary.
8. Reports of Committees.
9. Report of Censors and Election of Members.
10. Reports of Bureaus.
11. Unfinished Business.
12. New Business.
13. Election of Officers.
14. Announcement of Bureaus and Committees.
15. Adjournment.

LIST OF MEMBERS.

1870. Allen, J. W., M.D., Altoona.
1883. Allen, Richard C., M.D., Frankford, Philadelphia.
1883. Baker, Alfred E., M.D., 623 N. 18th St., Philadelphia.
1881. Bartlett, Clarence, M.D., 15th and Poplar Sts., Philadelphia.
1875. Betts, B. F., M.D., 1608 Girard Ave., Philadelphia.
1872. Bigler, W. H., M.D., 118 N. 12th St., Philadelphia.
1873. Bingaman, C. F., M.D., 294 Penn Ave., Pittsburgh.
1872. Bowie, A. P., M.D., Uniontown.
1880. Boyd, J. S., M.D., New Sheffield.
1882. Boyer, Francis W., M.D., Pottsville.
1875. Bradford, L. J., M.D., Sylvania.
1883. Branson, Mary, M.D., 141 N. 15th St., Philadelphia.
1872. Brickley, Obadiah C., M.D., York.
1881. Brooks, Charles M., M.D., 1613 N. 10th St., Philadelphia.
1883. Brown, Samuel, M.D., 651 N. 10th St., Philadelphia.
1879. Buck, M. J., M.D., Altoona.
1877. Bullard, J. A., M.D., Wilkes-Barre.
1881. Bunting, H. M., M.D., Norristown.
1866. Burgher, J. C., M.D., 332 Penn Ave., Pittsburgh.
1883. Burr, Richard, M.D., 1906 N. 12th St., Philadelphia.
1875. Canfield, Corresta T., M.D., 244 Lincoln Ave., Chicago, Ill.
1868. Carmany, C. J., M.D., Harrisburg.
1873. Caruthers, R. E., M.D., 107 Arch St., Allegheny City.
1873. Chantler, I. B., M.D., 63 Arch St., Allegheny City.
1875. Chapman, Millie J., M.D., 288 Penn Ave., Pittsburgh.
1868. Charlton, S. T., M.D., Harrisburg.
1866. Childs, W. R., M.D., 306 Penn Ave., Pittsburgh.
1868. Christ, William F., M.D., Parryville.
1883. Coe, Sarah J., M.D., Wilkes-Barre.
1873. Cook, I. Elmer, M.D., Harrisburg.
1883. Cooledge, J. W., M.D., Carbondale.
1866. Cooper, J. F., M.D., 42 N. Diamond St., Allegheny City.

1866. Cowley, David, M.D., Station A, Pittsburgh.
1882. Crauch, Edward, M.D., Erie.
1875. Crawford, J. S., M.D., Greensburg.
1883. Crowther, Isaac, M.D., Upland.
1883. Davis, E. Everett, M.D., 724 N. 43d St., Philadelphia.
1882. Dean, E. W., M.D., Braddock.
1866. Detwiller, Henry, M.D., Easton.
1866. Detwiller, John J., M.D., Easton.
1879. Detwiller, J. W., M.D., Bethlehem.
1878. Dinsmore, S. W. S., M.D., Sharpsburg.
1880. Doolittle, E. D., M.D., Easton.
1867. Dudley, Pemberton, M.D., 15th and Master Sts., Phila.
1878. Duff, P. S., M.D., Great Belt.
1882. Du Four, W. M., M.D., Williamsport.
1875. Dunn, James L., M.D., Titusville.
1881. Dunning, T. S., M.D., 1328 N. 15th St., Philadelphia.
1870. Earhart, J. R., M.D., 1839 Arch St., Philadelphia.
1873. Edmundson, W. F., M.D., 375 5th Ave., Pittsburgh.
1882. Evans, H. J., M.D., Altoona.
1870. Farrington, E. A., M.D., 1738 Green St., Philadelphia.
1880. Ferson, J. L., M.D., 137 Wylie Ave., Pittsburgh.
1883. Fornias, Edward, M.D., 401 Pine St., Philadelphia.
1873. Fulton, H. W., M.D., Penn and Hiland Aves., Pittsburgh.
1867. Garvin, John J., M.D., 1546 N. 11th St., Philadelphia.
1866. Gause, Owen B., M.D., 1519 Arch St., Philadelphia.
1883. Gause, Percy O. B., M.D., 1519 Arch St., Philadelphia.
1870. Gessler, C. W., M.D., 1332 S. 5th St., Philadelphia.
1879. Getze, C. M., M.D., Tarentum.
1875. Goodno, W. C., M.D., 4003 Chestnut St., Philadelphia.
1875. Graham, D. M., M.D., Chicago.
1883. Gramm, E. M., M.D., 875 N. 5th St., Philadelphia.
1867. Gramm, G. E., M.D., 1656 Vienna St., Philadelphia.
1883. Gramm, T. J., M.D., 1501 Franklin St., Philadelphia.
1881. Griffith, Silas, M.D., 1431 Girard Ave., Philadelphia.
1877. Griffith, W. M., M.D., 2035 Ridge Ave., Philadelphia.
1883. Gross, F. O., M.D., 1409 N. 4th St., Philadelphia.
1877. Grumbein, William, M.D., Annville.
1866. Guernsey, H. N., M.D., 1423 Chestnut St., Philadelphia.

1874. Guernsey, J. C., M.D., 1923 Chestnut St., Philadelphia.
1875. Guernsey, W. J., M.D., 4430 Frankford Ave., Phila.
1867. Gumpert, B. Barton, M.D., 840 Franklin St., Phila.
1879. Hall, William D., M.D., Altoona.
1883. Hancock, Jos., M.D., 1639 Columbia Ave., Philadelphia.
1883. Hassler, W. A., M.D., Allentown.
1881. Hawley, Annie M., M.D., Pughtown.
1883. Helfrich, J. H., M.D., Allentown.
1873. Herron, C. D., M.D., 17 Butler St., Pittsburgh.
1883. Holben, M. J., M.D., Slatington.
1882. Hofmann, C. H., M.D., 260 Penn Ave., Pittsburgh.
1866. Hofmann, H. H., M.D., 260 Penn Ave., Pittsburgh.
1883. Horner, J. Richey, M.D., Pittsburgh.
1871. Huebener, O. T., M.D., Lancaster.
1880. Humes, J. R., M.D., Hollidaysburg.
1882. Ivins, Horace F., M.D., 1319 Arch St., Philadelphia.
1883. Jackson, Lora C., M.D., 1526 Arch St., Philadelphia.
1866. James, Bushrod W., M.D., 18th and Green Sts., Phila.
1867. James, John E., M.D., 10th and Green Sts., Philadelphia.
1870. James, Walter M., M.D., 1123 Spruce St., Philadelphia.
1877. Johnson, Maria N., M.D., 1521 Green St., Philadelphia.
1881. Johnson, Theo. M., M.D., Pittston.
1869. Jones, Jos. E., M.D., West Chester.
1881. Karsner, Daniel, M.D., 4830 Main St., Germantown.
1875. Kern, W. H., M.D., McKeesport.
1877. Knerr, C. B., M.D., 112 N. 12th St., Philadelphia.
1866. Koch, Aug. W., M.D., 118 N. 12th St., Philadelphia.
1873. Kœnig, M. J., M.D., Jersey Shore.
1872. Korndœrfer, Aug., M.D., 648 N. 12th St., Philadelphia.
1877. Lee, E. J., M.D., 2107 Chestnut St., Philadelphia.
1866. Lee, John K., M.D., 3800 Chestnut St., Philadelphia.
1879. Lee, John K., M.D., Johnstown.
1873. Lefever, Isaac, M.D., Harrisburg.
1867. Lippe, Ad., M.D., 1204 Walnut St., Philadelphia.
1866. Liscomb, P. D., M.D., Beaver Falls.
1869. Macfarlan, Malcolm, M.D., 1805 Chestnut St., Phila.
1883. Maguire, W. T., M.D., 54th St. and Lansdown Ave., Phila.
1866. Malin, John, M.D., 70 W. Chelten Ave., Germantown.

1877. Malin, Wm. H., M.D., Chestnut Hill, Philadelphia.
1881. Mansfield, J. R., M.D., 4852 Main St., Germantown.
1883. Marshall, Anna M., M.D., 553 N. 16th St., Philadelphia.
1866. Martin, H. N., M.D., 1218 Walnut St., Philadelphia.
1877. Martin, W. J., M.D., 1708 Carson St., S. S., Pittsburgh.
1878. Maurer, J. M., M.D., Washington.
1881. May, Newton, M.D., Homesburg.
1871. Mercer, Robert P., M.D., Chester.
1871. Middleton, Caleb S., M.D., 646 N. 10th St., Philadelphia.
1877. Miller, Z. T., M.D., 1729 Carson St., S. S., Pittsburgh.
1883. Mitchell, J. N., M.D., 1222 Walnut St., Philadelphia.
1875. Mohr, Charles, M.D , 555 N. 16th St., Philadelphia.
1867. Morgan, John C., M.D , 1706 Green St., Philadelphia.
1881. Mullin, S. A., M.D., West Chester.
1883. Mullin, W. P., M.D., Germantown, Philadelphia.
1879. McClelland, J. B., M.D., 319 Penn Ave., Pittsburgh.
1867. McClelland, J. H., M.D , 319 Penn Ave., Pittsburgh.
1883. McClure, Eliza H. Lang, M.D., 811 N. 20th St., Phila.
1866. Neville, W. H. H., M.D., 19th and Fairmount Ave., Phila.
1883. Parker, T. Elwood, M.D., Parkersville.
1870. Parsons, Anson, M.D., Springboro.
1881. Parsons, E. C., M.D., Meadville.
1880. Peach, Wm., M.D., 115 Arch St., Allegheny City.
1881. Perkins, C. W., M.D., Chester.
1883. Pettingill, Eliza F., M.D., 300 N. 10th St., Philadelphia.
1868. Pfouts, J. S., M.D., Wilkes-Barre.
1870. Pierce, W. A. D., M.D., 1817 N. 11th St., Philadelphia.
1880. Pitcairn, Hugh, M.D., Harrisburg.
1883. Powell, W. C., M.D., Bryn Mawr.
1881. Pratt, J. W., M.D., Coatesville.
1871. Pratt, Trimble, M.D., Media.
1866. Preston, Mahlon, M.D., Norristown.
1882. Pursel, J. E., M.D., Renovo.
1875. Ramage, R. H., M.D., Mansfield Valley.
1872. Rankin, J. S., M.D., 59 Grant St., Pittsburgh.
1866. Rane, Charles G., M.D., 121 N. 10th St , Philadelphia
1867. Reading, E., M.D., Hatboro.
1883. Reading, J. H., M.D , 1719 Green St., Philadelphia.

1866. Reading, John R., M.D., Somerton.
1878. Rinehart, C. C., M.D., Marion Station, Pittsburgh.
1871. Rittenhouse, S. R., M.D., Reading.
1880. Robson, J. W., M.D., Pittsburgh.
1873. Roseberry, C. I., M.D., Easton.
1883. Ross, S. C., M.D., Scranton.
1883. Rousseau, L. G., M.D., 210 Penn Avenue, Pittsburgh.
1872. Rutter, J. C., M.D., Bloomsburg.
1872. Sartain, Harriet J., M.D., 210 Franklin St., Philadelphia.
1883. Saylor, N. A., M.D., 3118 Spring Garden St., Philadelphia.
1874. Schmucker, F. R., M.D., Reading.
1883. Schreiner, Emma T., M.D., 1607 Girard Ave., Philadelphia.
1880. Scott, S. C., M.D., 319 Penn Ave., Pittsburgh.
1868. Seip, C. P., M.D., 216 Penn Ave., Pittsburgh.
1875. Shannon, O. R., M.D., 207 Lacock St., Allegheny City.
1879. Shannon, S. F., M.D., Sewickley.
1883. Sharkey, W. P., M.D., 1938 Girard Ave., Philadelphia.
1881. Sharpless, E. S., M.D., 926 N. 8th St., Philadelphia.
1883. Shemp, P. D., M.D., 1117 Green St., Philadelphia.
1883. Skeels, J. S., M.D., Albion.
1883. Slough, F. J., M.D., Allentown.
1883. Slough, W. C. J., M.D., Emaus.
1880. Smedley, I. G., M.D., 34 N. 19th St., Philadelphia.
1870. Spencer, J. H., M.D., 1306 N. 7th St., Philadelphia.
1881. Stambach, H. L., M.D., Woodbury, N. J.
1883. Starr, Samuel, M.D., Chester.
1883. Stewart, H. Knox, M.D., 305 N. 6th St., Philadelphia.
1883. Still, Horace, M.D., Norristown.
1883. Strong, T. M., M.D., Ward's Island, New York City.
1881. Swartz, J. R., M.D., Harrisburg.
1881. Thatcher, J. W., M.D., 35th and Hamilton Sts., Phila.
1871. Thomas, A. R., M.D., 1733 Chestnut St., Philadelphia.
1877. Thomas, Charles M., M.D., 1313 Arch St., Philadelphia.
1881. Tomlinson, W. H., M.D., 2 E. School St., Germantown.
1881. Toothaker, C. E., M.D., 1717 Francis St., Philadelphia.
1882. Trites, W. B., M.D., 4500 Baker St., Manayunk, Phila.
1881. Umstead, D. B., M.D., Tacony, 23d Ward, Philadelphia.
1877. Van Artsdalen, C., M.D., Chelten Hills.

1883. Van Baun, W. W., M.D., 1742 N. 13th St., Philadelphia.
1883. Van Deusen, Josephine, M.D., 21st and Tioga Sts., Phila.
1881. Van Lennep, W. B., M.D., 623 N. 16th St., Philadelphia.
1867. Walker, Mahlon M., M.D., Germantown, Philadelphia.
1871. Wareheim, Edward A., M.D., Glen Rock.
1870. Waters, George H., M.D., 474 N. 6th St., Philadelphia.
1880. Way, J. H., M.D., West Chester.
1870. White, N., M.D., New Castle.
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1883. Weaver, W. P., M.D., Bristol.
1881. Williams, H. E., M.D., Coatesville.
1866. Williams, Thomas C., M.D., 567 N. 5th St., Philadelphia.
1873. Williamson, M. S., M.D., 29 N. 11th St., Philadelphia
1866. Willard, L. H., M.D., 67 Arch St., Allegheny City.
1870. Willits, William, M.D., Williamsport.
1877. Winslow, W. H., M.D., 334 Penn Ave., Pittsburgh.
1883. Wood, H. C., M.D., West Chester.
1866. Wood, James B., M.D., West Chester.
1883. Yearsley, Wm., M.D., 918 N. 10th St., Philadelphia.
1880. Yoder, D., M.D., Catasauqua.
1874. Young, J. H., M.D., 1910 Pine St., Philadelphia.
1880. Zerns, W. M., M.D., 1207 Wallace St., Philadelphia.

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NECROLOGICAL LIST.

1866. Ashton, A. H., M.D., died February, 18th, 1883.
1866. Barnaby, John E , M.D., died January 5th, 1869.
1867. Barrett, Charles B., M.D., died June 5th, 1871.
1866. Blakely, W. James, M.D., died January 14th, 1877.
1870. Bratt, Benj. R., M.D., died January 31st, 1872.
1866. Brooks, Silas S , M D., died July 2d, 1871.
1866. Cooke, Wm. H., M D., died March 21st, 1879.
1866. Cote, M., M.D , died May 29th, 1878.
1871. Dreibelbis, David L , M D., died March 24th, 1872
1866 Friese, Michael, M.D., died February 4th, 1880.
1866. Frost, J. H. P., M.D., died January 21st, 1875.
1866 Gardiner, Richard, M.D., died March 22d, 1877.
1870. Guernsey, Wm. F., M.D., died February 16th, 1877.
1866. Herron, James A., M.D , died November 15th, 1868.
1873. Houard, J. G , M.D., died April 24th, 1878.
1866. James, David, M D., died June 6th, 1873.
1866. Jeanes, Jacob M., M.D., died December 18th, 1877.
1871. Lovejoy, E., M.D. (honorary), died August 15th, 1872
1868. Malin, George W , M.D., died January 18th, 1883.
1866. Marsden, J. H., M.D., died August 27th, 1883.
1866. McClatchey, R. J., M.D., died January 15th, 1883.
1870. Moore, Thomas, M.D., died March 25th, 1882.
1869 Ostrander, W. M., M.D., died August 23d, 1881.
1868. Payne, Wm E., M D. (honorary), died March 9th, 1877.
1878 Pereira, Ignacio, M.D. (correspond'g), died April 18th, '81.
1866. Preston, Coates, M.D , died August 9th, 1881.
1870. Reinhold, H E., M.D., died March 6th, 1879.
1866. Roberts, R. Ross, M.D., died April 4th, 1875.
1866. Rousseau, L. M., M.D., died September 25th, 1882.
1872. Scott, James L., M.D , died August 15th, 1876.
1872. Speth, W. F., M.D., died May 11th, 1881.
——. Stauffer, D. R., M.D., died March 16th, 1874.
1867. Stevens, C. A., M.D., died January 17th, 1881.
1870. Taudte, F., M.D., died March 27th, 1878.
1866. Williamson, Walter, M.D., died December 19th, 1870.
1866. Williamson, Walter M., M.D., died May 5th, 1874.

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